2021 Fiscal Plan for Puerto Rico

Restoring Growth and Prosperity

As certified by the Financial Oversight and Management Board for Puerto Rico

April 23, 2021

DISCLAIMER

The Financial Oversight and Management Board for Puerto Rico (the "FOMB," or "Oversight Board") has formulated this 2021 Fiscal Plan based on, among other things, information obtained from the Commonwealth of Puerto Rico (the "Commonwealth," or the "Government").

This document does not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with standards established by the American Institute of Certified Public Accountants or any other organization. Accordingly, the Oversight Board cannot express an opinion or any other form of assurance on the financial statements or any financial or other information or the internal controls of the Government and the information contained herein.

This 2021 Fiscal Plan is directed to the Governor and Legislature of Puerto Rico based on underlying data obtained from the Government. No representations or warranties, express or implied, are made by the Oversight Board with respect to such information.

This 2021 Fiscal Plan is not a Title III plan of adjustment. It does not specify classes of claims and treatments. It neither discharges debts nor extinguishes liens.

The 2021 Fiscal Plan may be amended from time to time, as appropriate in the sole discretion of the Oversight Board.

This 2021 Fiscal Plan is based on what the Oversight Board believes is the best information currently available to it. To the extent the Oversight Board becomes aware of additional information after it certifies this 2021 Fiscal Plan that the Oversight Board determines warrants a revision of this 2021 Fiscal Plan, the Oversight Board will so revise it.

For the avoidance of doubt, the Oversight Board does not consider and has not considered anything in the 2021 Fiscal Plan as a "recommendation" pursuant to Section 205(a). Nevertheless, to the extent that anything in the 2021 Fiscal Plan is ever deemed by the Governor or Legislature or determined by a court having subject matter jurisdiction to be a "recommendation" pursuant to Section 205(a), the Oversight Board hereby adopts it in the 2021 Fiscal Plan pursuant to PROMESA Section 201(b).

Any statements and assumptions contained in this document, whether forward-looking or historical, are not guarantees of future performance and involve certain risks, uncertainties, estimates and other assumptions made in this document. The economic and financial condition of the Government and its instrumentalities is affected by various legal, financial, social, economic, environmental, governmental and political factors. These factors can be very complex, may vary from one fiscal year to the next, and are frequently the result of actions taken or not taken, not only by the Government and the Oversight Board, but also by other third-party entities such as the government of the United States. Examples of these factors include, but are not limited to:

– *Any future actions taken or not taken by the United States government related to Medicaid or the Affordable Care Act;*

– *The amount and timing of receipt of any distributions from the Federal Emergency Management Agency and private insurance companies to repair damage caused by Hurricanes María and Irma;*

– *The amount and timing of receipt of any amounts allocated to Puerto Rico and provided under the Community Disaster Loans Program;*

– *The amount and timing of any additional amounts appropriated by the United States government to address the impacts of the COVID-19 pandemic;*

– *The amount and timing of receipt of any additional amounts appropriated by the United States government to address the funding gap described herein;*

– *The timeline for completion of the work being done by the Puerto Rico Electric Power Authority ("PREPA") to repair PREPA's electric system and infrastructure and the impact of any future developments or issues related to PREPA's electric system and infrastructure on Puerto Rico's economic growth;*

– *The impact of the COVID-19 pandemic on the financial, social, economic, and demographic condition of Puerto Rico;*

– *The impact of the measures described herein on outmigration; and*

– *The impact of the resolution of any pending litigation in the Title III cases*

Because of the uncertainty and unpredictability of these factors, their impact cannot be included in the assumptions contained in this document. Future events and actual results may differ materially from any estimates, projections, or statements contained herein. Nothing in this document should be considered as an express or implied warranty of facts or future events; provided, however, that the Government is required to implement the measures in this 2021 Fiscal Plan and the Oversight Board reserves all its rights to compel compliance. Nothing in this document shall be considered a solicitation, recommendation or advice to any person to participate, pursue or support a course of action or transaction, to purchase or sell any security, or to make any investment decision.

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List of Acronyms and Key Terms

AAFAF	Puerto Rico Fiscal Agency and Financial Advisory Authority (Spanish acronym)
AAR	Annual Audited Report
ACA	Affordable Care Act
ADEA	Agricultural Enterprise Development Administration (Spanish acronym)
ADSEF	Family Socio-Economic Development Administration (Spanish acronym)
ACFR	Annual Comprehensive Financial Report
AFSCME	American Federation of State, County and Municipal Employees
AMA	Metropolitan Bus Authority (Spanish acronym)
AMPR	Puerto Rico Teachers' Association (Spanish acronym)
April 2018 Fiscal Plan	Fiscal Plan certified by the Oversight Board in April 2018
ARP	American Rescue Plan Act of 2021
ASEM	Puerto Rico Medical Services Administration (Spanish acronym)
ASES	Puerto Rico Health Insurance Administration (Spanish acronym)
ASSMCA	Mental Health and Anti-Addiction Services Administration (Spanish acronym)
ATM	Maritime Transportation Authority (Spanish acronym)
BBA	Bipartisan Budget Act of 2018
CAF	(FCC) Connect America Fund
CAGR	Compound Annual Growth Rate
CARES	Coronavirus Aid, Relief, and Economic Security Act
CASA	Sustainable Support to Students Centers Project (Spanish acronym)
CAT bond	Catastrophe bond
CBO	Congressional Budget Office
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant – Disaster Relief
CBDG-MIT	Community Development Block Grant – Mitigation
CCPRC	Cardiovascular Center of Puerto Rico and the Caribbean
CDPR	Center for Research, Education, and Medical Services for Diabetes
CDT	Diagnostic and Treatment Center (Spanish acronym)
CEE	State Elections Commission (Spanish acronym)
CHIP	Children's Health Insurance Program
CILT	Contribution-in-lieu of Taxes
CINE	Corporation for the Development of the Arts, Science and Film Industry of Puerto Rico (Spanish acronym)
CMS	The Centers for Medicare and Medicaid Services
COFIM	Municipal Finance Corporation (Spanish acronym)
COFINA	Puerto Rico Sales Tax Financing Corporation (Spanish acronym)
COSSEC	Public Corporation for the Supervision and Deposit Insurance of Puerto Rico Cooperatives (Spanish acronym)
COR3	Central Office for Recovery, Reconstruction, and Resiliency
CRF	Coronavirus Relief Funds
CRIM	The Municipal Revenue Collection Center (Spanish acronym)
CRRSA	Coronavirus Response and Relief Supplemental Appropriations Act
CTC	Child Tax Credit
CUB	Land Use Consult
DCR	Department of Corrections and Rehabilitation
DB	Defined Benefit pension plan
DC	Defined Contribution pension plan
DDEC	Puerto Rico Department of Economic Development Commerce (Spanish acronym)
DDP	Permitting Performance Dashboard
DEC	Determination of Categorical Exclusion
DMO	Destination Marketing Organization
DOH	Department of Health
DOJ	Department of Justice
DOJ-PR	Department of Justice – Property Registry
DOS	Department of State
DNER	Department of Natural and Environmental Resources
DPR	Discover Puerto Rico
DPS	Department of Public Safety
DRD	The Sports and Recreation Department (Spanish acronym)
DRF	Disaster Relief Fund
DRG	Diagnosis-Related Group
DSA	Debt Sustainability Analysis
DTOP	Department of Transportation and Public Works (Spanish acronym)
EA	Environmental Assessment
eFMAP	Enhanced FMAP
EIP	Economic Impact Payments
EITC	Earned Income Tax Credit
EPA	Environmental Protection Authority
ERP	Enterprise Resource Planning
ERS	Employee Retirement System
ESSER	Elementary and Secondary School Emergency Relief fund
FAM	Municipal Administration Fund (Spanish Acronym)

FCC	Federal Communications Commission
FDI	Foreign Direct Investment
FEDE	Special Fund for Economic Development (Spanish acronym)
Federal Government	The U.S. Federal Government
FEMA	Federal Emergency Management Agency
FEMP	Federal Energy Management Program
FFCRA	Families First Coronavirus Response Act
FHWA	Federal Highway Administration
FICA	Federal Insurance Contributions Act
FIE	Economic Incentive Funds (Spanish acronym)
FMAP	Federal Medical Assistance Percentage (FMAP)
FMM	Municipal Improvement Fund (Spanish acronym)
FOMB	Financial Oversight and Management Board for Puerto Rico
FPUC	Federal Pandemic Unemployment Compensation
FQHC	Federally Qualified Health Center
FTA	Federal Transit Administration
FTE	Full-Time Employee
FTZ	Foreign-Trade Zone
FY	Fiscal Year
FYTD	Fiscal-Year-To-Date
GAO	US Government Accountability Office
GASB	Governmental Accounting Standards Board
GDB	Government Development Bank for Puerto Rico
GDP	Gross Domestic Product
GF	General Fund
GNP	Gross National Product
Government	Government of Puerto Rico
Governor	Governor Pedro Pierluisi
GSA	General Services Administration
Hacienda	Puerto Rico Department of Treasury
HHS	US Department of Health and Human Services
HHS-OIG	Office of Inspector General at the U.S. Department of Health and Human Services
HIT	Health Insurance Tax
HMO	Health Maintenance Organization
HMS	HMS Ferries, LLC
HOPU	University Pediatric Hospital (Spanish acronym)
HPSA	Health Professional Service Areas
HRM	Human Resource Management
HTA	Highways and Transportation Authority
HUD	US Department of Housing and Urban Development
IEEE	Institute of Electrical and Electronics Engineers
IEP	Individualized Education Plan
IFCU	Independently Forecasted Component Units
IMF	International Monetary Fund
IPA	Investment Promotion Agency
IPR	Invest Puerto Rico
IRP	Integrated Resource Plan
Island	Puerto Rico
JP	Planning Board (Spanish acronym)
JRS	Judiciary Retirement System
KPIs	Key Performance Indicators
LEA	Local Education Agency
LUMA	LUMA Energy, LLC
M&A	Merger and Acquisition
March 2017 Fiscal Plan	Fiscal Plan certified by the Oversight Board in March 2017
MADS	Maximum Annual Debt Service
MCOs	Managed Care Organizations
MDRP	Medicaid Drug Reimbursement Program
MFCU	Medicaid Fraud Control Units
MICE	Meetings, Incentives, Conferences, and Exhibitions
MiPE	Mi Portal Especial
Mi Salud	Medicaid program in Puerto Rico (now called VITAL)
MMIS	Medicaid Management Information System
MOU	Memorandum of Understanding
MTSS	Multi-Tiered System of Support
NAP	Nutrition Assistance Program (Spanish: Programa de Asistencia Nutricional, PAN)
NRW	Non-Resident Withholdings
NTSP	Transportation and Public Services Bureau (Spanish acronym)
OATRH	Office of the Administration and Transformation of Human Resources
OCFO	Office of the CFO
October 2018 Fiscal Plan	Fiscal Plan certified by the Oversight Board in October 2018

O&M	Operations and maintenance
OECD	Organization for Economic Cooperation and Development
OGP	Office of Management and Budget (Spanish acronym)
OGPe	Permits Management Office (Spanish acronym)
OIPC	Independent Office of Consumer Protection (Spanish acronym)
OMA	Operations and Maintenance Agreement
OMB	Office of Management and Budget
OMEP	Office for Public School Improvement (Spanish acronym)
OPEB	Pension and Other Post-Employment Benefits (Spanish acronym)
P3	Public Private Partnerships
P3 Authority	Public Private Partnership Authority
PA	Public Assistance
Parties	AAFAF and the Government
PayGo	Defined benefit actuarial responsibility program by which agencies and instrumentalities are responsible for paying their pensions obligations on an annual basis via a “PayGo Charge”
PBA	Public Buildings Authority
PBL	Project-Based Learning
PCOC	Consolidated construction permit (Spanish acronym)
PDMP	Prescription Drug Monitoring Program
PERM	Payment Error Rate Measurement
PEUC	Pandemic Emergency Unemployment Compensation
PIA	Pharmaceutical Industry Association
PISA	Program for International Student Assessment
Platino	Medicare Advantage program that also provides Medicaid wraparound services equivalent to Mi Salud / VITAL program
PMO	Program Management Office
PMPM	Per Member Per Month
POA	Plan of Adjustment
PPOA	Power purchase and operating agreement
PPP	Public Private Partnership
PPT	Pilot Project Team
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRCCDA	Puerto Rico Convention Center District Authority
PRDE	Puerto Rico Department of Education
PREB	Puerto Rico Energy Bureau
PREMA	Puerto Rico Emergency Management Agency
PREPA	Puerto Rico Electric and Power Authority
PRHFA (or HFA)	Puerto Rico Housing Finance Authority
PRHTA (or HTA)	Puerto Rico Highway and Transportation Authority
PRIDCO	Puerto Rico Industrial Development Company
PRITA	Puerto Rico Integrated Transit Authority
PRITS	Puerto Rico Information Technology Service
PROMESA	Puerto Rico Oversight, Management and Economic Stability Act
PRPB	Puerto Rico Police Bureau
PRPL	Puerto Rico Poverty Line
PRTC	Puerto Rico Tourism Corporation
PSC	Puerto Rico Public Service Commission
PSRB	Public Service Regulatory Board
PU	Single business permit (Spanish acronym)
PUA	Pandemic Unemployment Assistance
PYMEs	Small and Medium Enterprises (Spanish Acronym)
RCM	Revenue Cycle Management
RFP	Request for Proposal
RR	Roosevelt Roads
RSA	Restructuring Support Agreement
SAEE	Associate Secretary for Special Education (Spanish education)
SAIDI	System Average Interruptions Duration Index
SAIFI	System Average Interruptions Frequency Index
SBP	Single Business Portal
SCO	State Coordinating Officer
SEAs	State Education Agencies
SIFC	State Insurance Fund Corporation
SIFDE	Financial Information System of the Department of Education (Spanish acronym)
SOGR	State of Good Repair
SRF	Special Revenue Fund
SR	Structural Reform
SRI	Infrastructure Agency Recommendation
ST ratio	Student-to-Teacher ratio
SURI	Internal Revenue Unified System (Spanish acronym)
SUT	Sales and Use Tax
SWIS	State Wage Interchange System
T&A	Time and Attendance

TAMP	Transportation Asset Management Plan
TANF	Temporary Assistance for Needy Families
TNC	Transportation network companies
TPB	Transportation Policy Board
TPFA	Third-Party Fiduciary Agent
TRS	Teachers' Retirement System
TU	Urban Train (Spanish acronym)
UDH	University District Hospital for Adults
UPR	University of Puerto Rico
URP	Uniform Remuneration Plan
USDA	United States Department of Agriculture
USDE	United States Department of Education
VITA	Volunteer income tax assistance
WIOA	Workforce Innovation and Opportunity Act
WIPR	Public Broadcasting Corporation (Spanish acronym)
2019 Fiscal Plan	Fiscal Plan certified by the Oversight Board in May 2019
2020 Fiscal Plan	Fiscal Plan certified by the Oversight Board in May 2020

Table of Contents

DRA Ex. 236

Executive Summary

The people of Puerto Rico need and deserve plentiful good jobs, a dynamic and prosperous economy, affordable and reliable electricity, and an efficient and responsive public sector—but have not had any of these things for more than a decade. Instead, since 2005, the economy has shrunk, the number of people living under the poverty line has increased, electricity has remained expensive and unreliable, labor market regulations have remained burdensome, the business environment has remained complicated and difficult, and the public sector has provided declining levels of service at a high cost to residents.

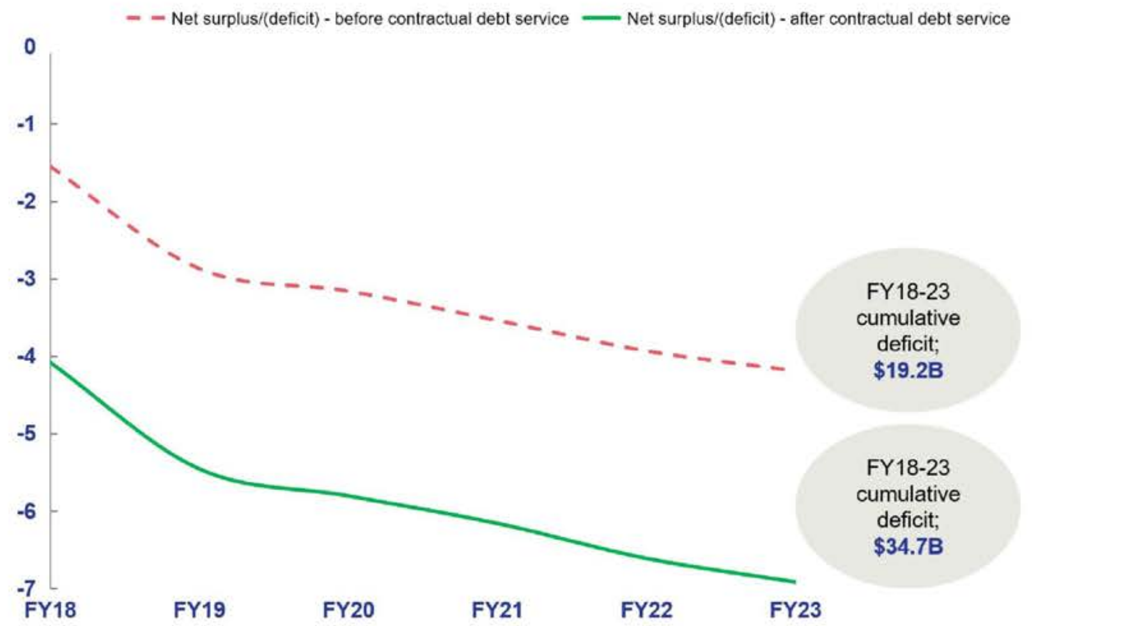
In addition, over the last four years, the people of Puerto Rico have come through unprecedented hardships, including catastrophic hurricanes, political upheaval, earthquakes, and now the worldwide COVID-19 pandemic. The Island has shown remarkable resilience and appears to be on the brink of emerging from the health and economic emergency.

The Federal Government's response to the crises – including over $100 billion in disaster recovery and COVID-19 response funding – provides a window of opportunity for the Government of Puerto Rico to take the transformative steps needed to create the conditions for growth, spur private sector innovation and investments, and improve opportunity and quality of life for residents. The 2021 Fiscal Plan builds on that support and investment, while providing a comprehensive roadmap of reforms, investments, and measures to allow the Island achieve these critical objectives and ensure that the Government is sustainable and effective for the residents of the Island going forward.

* * *

To enable progress, the 2021 Fiscal Plan includes the steps necessary to address the longstanding fiscal management challenges that were contributing to growing forecasted deficits before the Fiscal Plan (See *Exhibit 1*). This deficit was difficult to forecast with certainty because of the protracted delays in issuing annual audited financial statements, lack of proper fiscal controls, lack of centralized financial records, and inefficient financial management. Puerto Rico had also been in an economic structural decline for over a decade, which led to an eroding tax base. To finance these primary deficits, Puerto Rico had resorted to issuing debt, which became unsustainable. As the Oversight Board began its work in late 2016, the Commonwealth was projected to run structural annual deficits exceeding $7 billion, or $3 billion before debt service.

EXHIBIT 1: PROJECTED PRE-FISCAL PLAN DEFICIT (BEFORE THE HURRICANES)



On top of these longstanding economic challenges, multiple large-scale natural disasters—including the 2017 hurricanes, 2019 and 2020 earthquakes, and recently the COVID-19 pandemic—have struck Puerto Rico in the last five years, testing the resiliency of public, private and social sector institutions like never before.

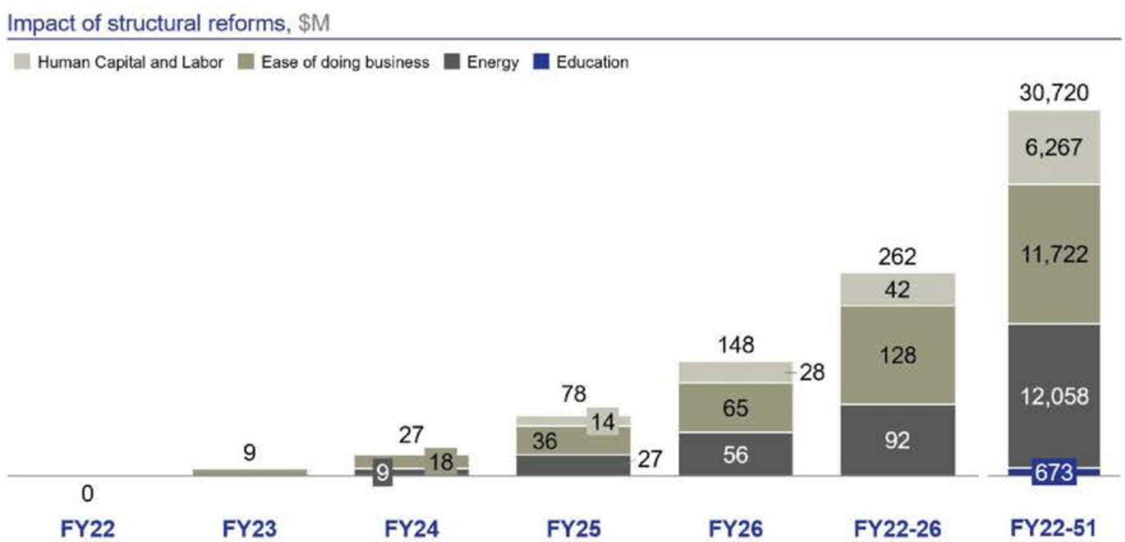
For nearly five years, the Financial Oversight and Management Board for Puerto Rico ("FOMB" or the "Oversight Board") has worked to fulfill the mandate of PROMESA—to ensure fiscal sustainability and restore access to capital markets—by developing a roadmap to institute robust structural reforms to spur economic growth, make strategic investments to improve the Island's resilience against natural disasters, and implement fiscal measures to improve government efficiency.

First, the 2021 Fiscal Plan lays out a set of structural reforms that, if successfully implemented, would enable Puerto Rico to begin to grow again, countering the negative growth trajectory that has plagued the Island for over a decade. These include human capital, welfare, and education reforms to advance successful participation in the formal labor market, reforms to streamline core business processes (e.g., paying taxes, registering property, and obtaining permits) to enable job creation by attracting greater levels of investment into the economy, and reforms to facilitate reliable power and stable infrastructure for businesses and households. Each of these are elements required for Puerto Rico to compete within the United States and globally, and to stem outmigration from the Island:

- **Human capital and welfare reform:** Promoting participation in the formal labor force by creating incentives to work through Earned Income Tax Credit (EITC) benefits and Nutritional Assistance Program (NAP) reform, as well as providing comprehensive workforce development opportunities to improve skills and ensure workforce is prepared for the jobs of tomorrow. EITC and NAP reform are projected to increase the economic growth rate by 0.15% in FY2025.
- **K-12 education reform:** Transforming the K-12 education system to dramatically improve student outcomes and contribute to an effective workforce in the long-term. Education reforms are projected to add 0.15% to the GNP growth rate between FY2037-FY2051.

- **Ease of doing business reform:** Improving the competitiveness and attractiveness of Puerto Rico's economy by reducing obstacles to starting and sustaining a business through improvements to processes to obtain permits, register property, and pay taxes; and by establishing best-in-class entities to attract investment and increase tourism. These reforms are projected to drive a 0.30% uptick in overall growth by FY2026.
- **Power sector reform:** Providing lower cost and more reliable energy through the transformation of PREPA, the establishment of an independent, expert, and well-funded energy regulator, and the development of cleaner and lower cost power generation. This reform is projected to increase growth by 0.30% by FY2026.
- **Infrastructure reform:** Integrating all transit assets under PRITA, so it can act as a unitary transit authority managing all transit assets on the Island (e.g., all buses, ferries, Tren Urbano), and reforming the public transportation sector more broadly.

EXHIBIT 2: IMPACT OF STRUCTURAL REFORMS



The 2021 Fiscal Plan has also allocated strategic investments to enhance economic growth, enable government response to emergencies, and enhance frontline service delivery. Fiscal Plans have included funds for an Earned Income Tax Credit to encourage more formal labor market participation on the Island and needs-based scholarships for UPR to ensure every student on the Island can access higher education. To support frontline service delivery, Fiscal Plans have included raises for teachers, principals, firefighters, and police officers to ensure salaries for these critical frontline roles are more competitive. Strategic capital investments have been made in hospitals, correctional institutions, public safety equipment, and other infrastructure. After each natural disaster and crisis, the Oversight Board has worked with Government to make funds available to help individuals, businesses, and agencies navigate the crisis and recover, including pausing most fiscal measures for FY2021 to enable agencies to combat the COVID-19 crisis and allowing more time to implement operational changes. Finally, Fiscal Plans have established emergency reserves to enable the Government of Puerto Rico to act immediately to support the people of the Island during crises.

Moreover, to help the Commonwealth rebuild its infrastructure, strengthen its economy and improve the lives of local residents, the 2021 Fiscal Plan includes investments aimed at strengthening the ability of the Island to benefit from the growing importance of technology in every facet of life and business, as well as ensure a qualified, trained work force able to respond to the needs of this ever growing segment of the economy. The 2021 Fiscal Plan allocates $400 million to incentivize private sector investments in broadband build-out and to improve access to

faster speed offerings in underserved areas. These investments should help overcome barriers to broadband expansion and ensure that all residents and enterprises in Puerto Rico benefit from this capacity. It also allocates $50 million for a 21st century Technical and Business Education Fund to invest in local residents acquiring technical and business skills so that the people of Puerto Rico are able to compete in a global economy. Finally, the sustainability and quality of public services requires a comprehensive civil service reform to resolve the underlying problems and challenges of human resources management in the Government. The 2021 Fiscal Plan outlines a comprehensive plan to improve the civil service, starting with a pilot for financial management personnel. The 2021 Fiscal Plan includes almost $800 million in investment (FY22-51) in order to improve strategic human capital planning, recruitment, performance management and evaluations, and succession planning, as well as hiring of additional staff and salary increases for key personnel (where deemed necessary). Civil service reform is critical to address the root causes behind the lack of execution on important initiatives by the Government of Puerto Rico in the past. Without it positive sustainable change is not possible.

In addition to these investments, the Fiscal Plan focuses on improving the responsiveness, efficiency, and affordability of the Government. Fiscal Plans have included a set of fiscal measures that aim to create robust fiscal controls and accountability through the establishment of the Office of the CFO, consolidation and streamlining of agency operations, reduction the ever-escalating costs of Medicaid and pensions, increasing revenue collections through improved compliance, and enhancing the fiscal self-sufficiency of the University of Puerto Rico and municipalities. The Oversight Board has worked hand-in-hand with Government agencies to craft clear pathways for each reform and reduce barriers to change.

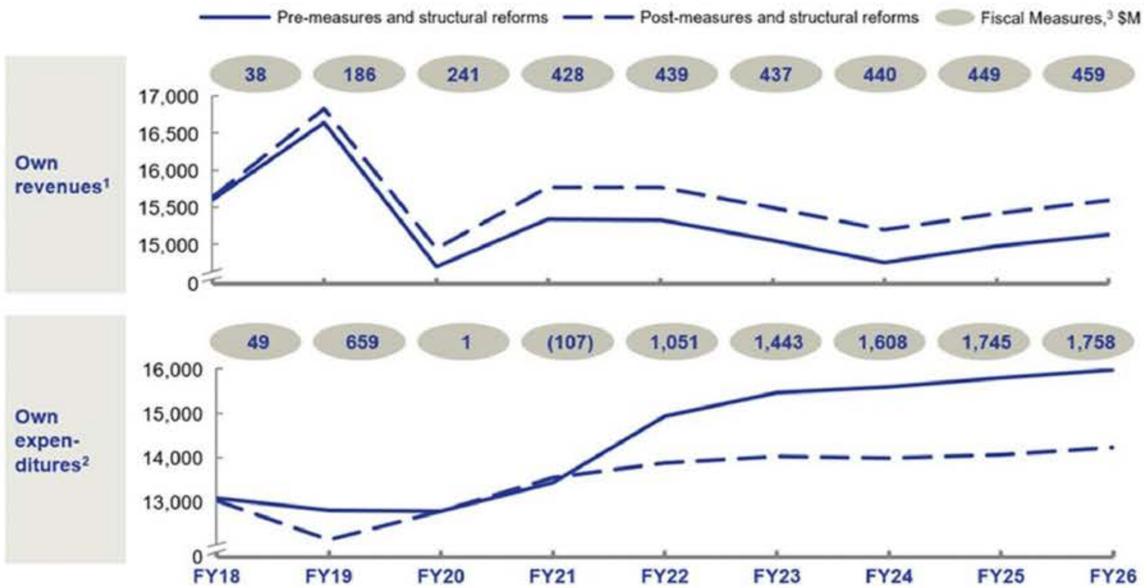
These measures include:

- **Creation of Office of the CFO***:* Instituting fiscal controls, centralizing fiscal authority, and improving governance, accountability, and transparency over budgets, reform implementation, procurement, and personnel to ensure the Government is an efficient and effective steward of its resources
- **Agency efficiencies**: Consolidating agencies to leverage valuable human and financial resources; centralizing procurement to achieve greater purchasing power and transparency; and transforming processes and deploying new management practices to deliver better governmental services for substantially lower cost
- **Medicaid reform***:* Taking the necessary steps to curb fraud, waste, and abuse in the healthcare system, ensuring that resources are directed to those in need of health services, and improving health outcomes on the Island
- **Enhanced tax compliance and optimized taxes and fees***:* Employing new technology and data to broaden the tax base, reducing non-compliance, and improving fairness to boost overall tax revenues while adjusting existing taxes and fees to capture revenues from under-leveraged sources
- **Reduction of appropriations:** Encouraging sound fiscal self-management and revenue generation among municipalities and the University of Puerto Rico by reducing central government appropriations, while meeting the needs of students facing financial challenges with the creation of an independently-managed, means-tested scholarship fund
- **Comprehensive pension reform:** Improving the financial stability of public employees through reforms that maintain enough funds to comply with the payment of pension benefits and provide the administration necessary to create a defined contribution plan for employees

The impact of these measures on revenues and expenditures is demonstrated in *Exhibit 3*.

EXHIBIT 3: IMPACT OF REVENUE AND EXPENDITURE MEASURES ON OWN REVENUES AND EXPENDITURES

Impact of measures on Government revenues and expenditures, $M



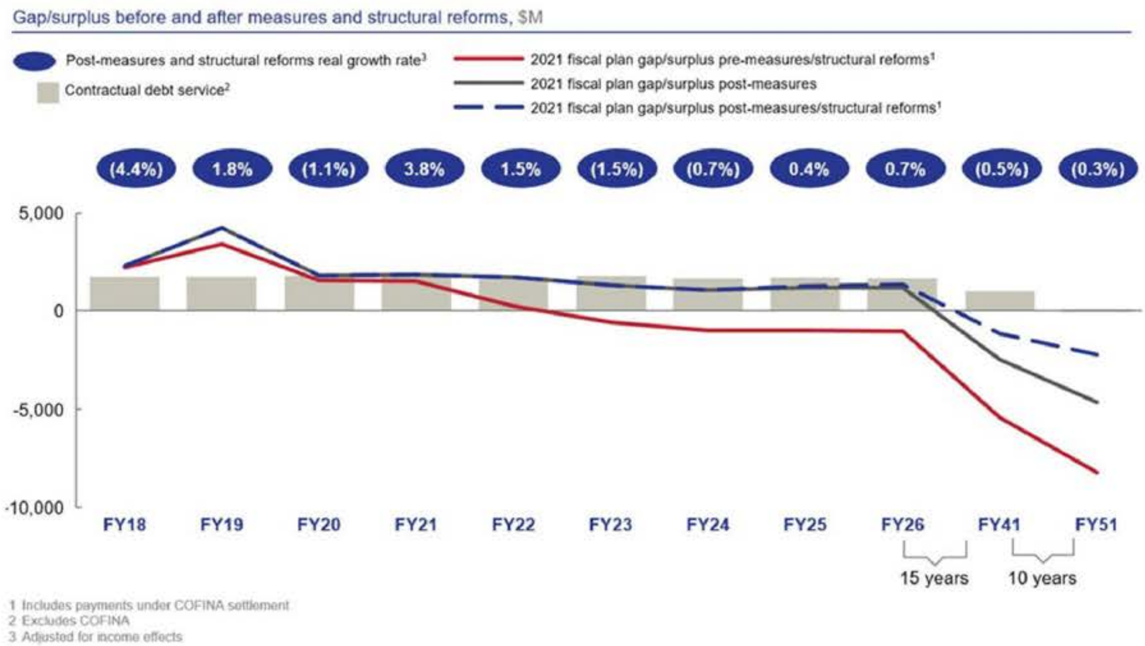
1 Own revenues includes all Commonwealth-collected revenues excluding gross up items included in the 2021 Fiscal Plan and excludes all federal transfers; includes impact of COFINA settlement
2 Own expenditures includes total Commonwealth funded operating expenditures, excluding federally-funded Medicaid and Social Programs; own expenditures increase during FY22 due to Medicaid Supplemental Funding phase out
3 Comprised only of fiscal measures attributable to the Commonwealth. Figures represent the net of expense measures and new investments

Since certifying the first Fiscal Plan in 2017, and notwithstanding the emergencies, the Oversight Board has worked with the Government to make initial progress toward the objectives supporting the fiscal measures. This has resulted in the ability of the Government to increase expenditures at a time of crisis, while ensuring total expenditure levels remain within total available revenues, rather than be forced to cut budgets that have not been carefully managed, as other states have been forced to do as COVID-19 has caused revenues to drop. There is a new level of transparency and control over government spending, including the elimination of multi-year appropriations that permitted overspending; controls over the reapportionment of funding between concepts of spend to eliminate the defunding of accrued liabilities; and regular reporting on revenues and expenses. Moreover, the fiscal year 2020 and 2021 budgets were built at a granular "concept code" level (e.g., differentiating between spend on professional IT services versus advisory services). The Oversight Board has been able to reject contracts that could have led to overspending, such as the proposal to externalize Puerto Rican prisons, and the Government has been held accountable to its implementation requirements via public hearings, such as those held on education, public safety, corrections, and economic development.

These actions by the Oversight Board are the reason that the Commonwealth has been able to accumulate substantial surpluses, which serve as a foundational element of the Commonwealth's progress in providing for investment, economic growth, and satisfaction of claims of all stakeholders.

DRA Ex. 236

EXHIBIT 4: 2021 FISCAL PLAN PROJECTED TOTAL SURPLUS BEFORE AND AFTER MEASURES AND STRUCTURAL REFORMS (EXCLUDING DEBT SERVICE)



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Though much progress has been made, diligent and focused efforts are needed in the coming years to accelerate momentum and reach a more sustainable path. While natural disasters and the pandemic have been incredibly damaging and disruptive to lives and livelihoods of the residents on the Island, they have been accompanied with over $100 billion in federal relief funding for disaster relief and recovery, and to respond to the COVID-19 pandemic.

In conclusion, this unprecedented level of federal support—which represents over 100% of Puerto Rico's Gross National Product—provides a once in a generation opportunity to build resilient infrastructure, invest in economic growth, improve government services, and rebound from the effect of the pandemic on residents, businesses, and the not-for-profit sector. The investments can also unlock creativity, entrepreneurship, and private sector investment when coupled with the much needed reforms to the business climate outlined in the Fiscal Plan. Finally, the near term support enables a window of opportunity to build a more effective government to serve the people. Taken together, these actions – if fully implemented – can help to stem the demographic outflow, improve quality of life, and return Puerto Rico to growth.

PART I: Context for Puerto Rico's current economic and fiscal challenges

Chapter 1. Long-term economic trends in Puerto Rico

Even before suffering a series of natural disasters in the form of hurricanes, earthquakes, and the COVID-19 pandemic from 2017-2020, Puerto Rico's economy had been in an acute structural decline for over a decade. The Government had defaulted on much of its debt, and nearly half of local residents lived below the national poverty line. The reasons for these problems are multiple, but the root causes stretch back 40 years.

In the 1940s and 1950s, led by Operation Bootstrap, Puerto Rico's economy grew rapidly and productivity increased by 5% per annum as it transitioned from an agricultural-led to a manufacturing-led economy. However, as economic performance began to decline in the 1970s, the Federal Government adopted two significant policies to help Puerto Rico shore up its economy.

First, transfer programs increased dramatically, particularly as Puerto Rico started receiving Nutritional Assistance Program (NAP) funding, eventually providing, in aggregate, a proportion of residents' personal income that was twice the U.S. mainland average. In addition to raising costs for the Government, these programs, at times, created disincentives to work due to benefits that were high relative to wages available in the formal labor market.

Second, in 1976, Section 936 of the federal tax code was introduced to promote investments by companies that could transfer their "intangible assets" to Puerto Rico, and thereby shift profits to the Island. These Section 936 companies, which were mostly in pharmaceuticals and life sciences, became a pillar of Puerto Rico's economy, creating valuable local supply chains and local banking deposits, and contributing substantial tax revenue. In the same year, Puerto Rico passed Law 80, which instituted protections against wrongful discharge for local workers and mandated severance for firms attempting to remove employees. This law made Puerto Rico's labor market significantly more rigid and placed it out of step with the prevailing labor markets in the U.S.

In 1996, Congress decided to end Section 936, gradually phasing it out by 2006. In the face of an anemic local private sector, the Government also expanded its employment to the point that, by 2000, 30% of Puerto Rico's jobs were in government and a full 40% of workers with college degrees worked in the public sector. Major sectors such as water, electricity, and ports are still run by public corporations, and have consistently created a drain on the economy by delivering lower quality services at high costs while crowding out private investment. There was also pervasive cross-subsidization among the Commonwealth, public corporations, and other parts of the public sector that obfuscates financial management and accountability. Finally, there was a high degree of political interference in decisions that affect every aspect of life in Puerto Rico. As a result, Puerto Rico underperformed on all important measures of a modern economy, including educational attainment, cost of electricity, quality of water, tax compliance, and labor market participation.

To promote the private sector, the Government undertook a broad tax incentives policy that led to a highly complex web of non-transparent subsidies and special tax arrangements. These actions neither promoted growth nor treated companies equitably, often discriminating against Puerto Rican companies in favor of multinational companies. Moreover, this system created no inducement for new investment without similar tax incentives, further eroding the potential tax base. In addition, generous government and federal transfer programs, taken together, produced disincentives to formal work, given the potential loss of housing and/or healthcare, while

increasing the share of the informal economy. Tax compliance has never been adequate in Puerto Rico, and it became increasingly difficult in this environment.

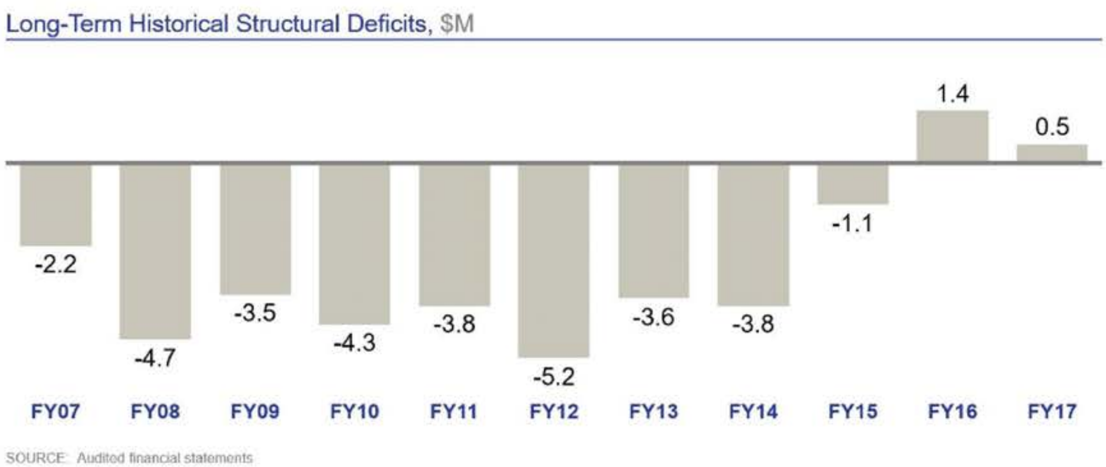
Government revenues suffered and became increasingly hard to forecast. Taken together with unmanageable and unconnected systems of accounting across government entities, as well as delayed financial audits, fiscal discipline eroded. To make up for this recurring and growing budgetary shortfall, the Commonwealth turned to debt markets. Puerto Rico bonds found themselves in every corner of the U.S. bond market and, as investor appetite began to wane, the Government turned to securing new debt by conditionally pledging various revenue streams. The result was a highly complex financial structure that limited transparency as well as financial accountability and management.

When the financial crisis hit in 2008, Puerto Rico's economy was already in a fragile fiscal and financial position. Since then, the economy has continued to worsen. Puerto Rico has seen its gross national product (GNP) shrink by 17%, labor force participation fall to a record low of 39%, and population decline by 15%.[1] Puerto Rico is much poorer relative to the mainland U.S. today than it was in 1970.

Chapter 2. Context for PROMESA and the creation of the Oversight Board

In the context of these long-term economic and demographic trends, government spending lacked transparency and did not adjust to the new reality. As a result, before the establishment of the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA), the Government was running large, long-term structural deficits (*Exhibit 5*).

EXHIBIT 5: LONG-TERM STRUCTURAL DEFICITS

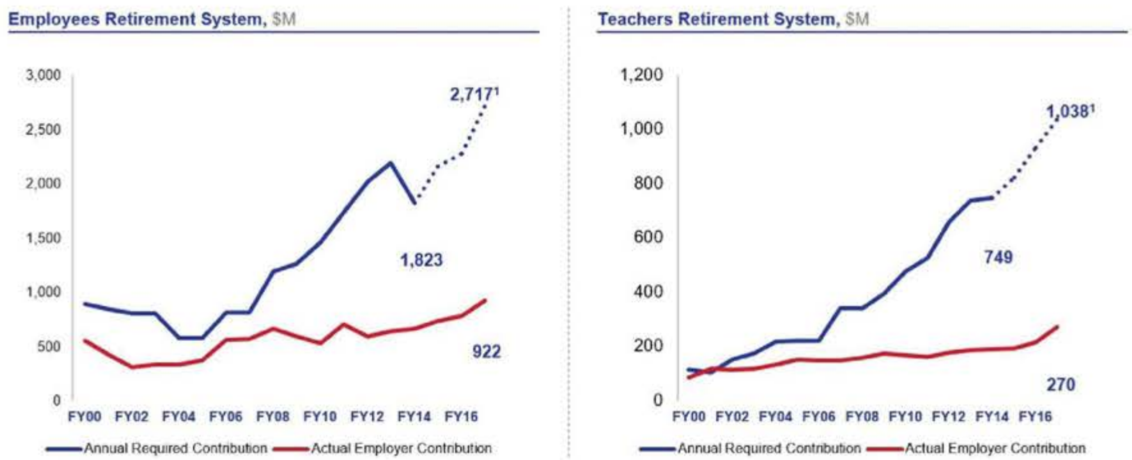


Although some changes were made to reduce government spending in the years leading up to PROMESA, contributions to the pension systems were persistently far below necessary levels. As shown in *Exhibit 6*, over the past two decades, the actuarial annual required contributions to the pension systems were far greater than the actual employer contributions made. In fact, as early as 2007, system actuaries had expressed that statutory contribution requirements were not sufficient to meet future plan needs. Despite that reality, while various steps were taken to

1 GNP and population decline represent the change between 2008 and 2018 per data from the World Bank Group's World Development Indicators

improve the funded status of the Retirement Systems over time, these large annual financial and operational shortfalls directly led to the depletion of the fund assets to a point where the pension systems were no longer viable.

EXHIBIT 6: EMPLOYEES AND TEACHERS RETIREMENT SYSTEM REQUIRED AND ACTUAL CONTRIBUTION



1 In 2015 the systems began reporting under GASB 67, which did not require calculations of the ARC if the contributions were made on a statutory basis. Thus, the system actuaries no longer computed the ARC for the pension benefits. ARCs after 2014 have been estimated based on the Total Pension Liability, Fiduciary Net Position and Service Costs disclosed in the GASB 67 valuation reports.

By 2016, Puerto Rico was in the midst of an irreconcilable liquidity, fiscal, and economic crisis. The Commonwealth was being crushed under the weight of public debt that was larger than its GNP, it had started to default on its debt obligations, and it had lost access to external financing. All of the overspending drew down the Government's bank account balances, leading to dangerously low liquidity levels and revenue shortfalls. At one point, the Government's primary cash account, the Treasury Single Account (TSA), fell to as little as $15 million. Even worse, these calamitous financial circumstances threatened to create a humanitarian crisis for the over 3 million residents living on Island. As the U.S. Secretary of the Treasury at the time observed, the Commonwealth's ability to provide basic healthcare, legal, and education services was in serious doubt. No multi-year, coordinated strategy existed to restore growth and opportunity to the people of Puerto Rico.

2.1 Enactment of PROMESA

On June 30, 2016, President Obama signed into law the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA), 48 U.S.C. § 2101 et seq., to work toward a remedy to the ongoing fiscal and humanitarian crisis in Puerto Rico. The goal of PROMESA is to meet Puerto Rico's immediate need to provide its residents effective services, to formulate a debt restructuring, and to implement fiscal and structural reforms leading to a sustainable economy, fiscal responsibility, and market access.

PROMESA establishes two primary mechanisms for restoring fiscal responsibility. First, Titles I, II, IV, and V of PROMESA create the Financial Oversight and Management Board (FOMB or Oversight Board) for Puerto Rico and provide it powers and duties governing the review and certification of multi-year fiscal plans, annual budgets, major contracts and strategic infrastructure projects. Second, Titles III and VI of PROMESA provide for debt restructurings, similar to bankruptcy cases and out-of-court restructurings, respectively, for Puerto Rico and its instrumentalities. By incorporating many provisions of Title 11 of the United States Code (the "Bankruptcy Code") into Title III of PROMESA, which provides for restructurings similar to

restructurings under chapters 9 and 11 of the Bankruptcy Code, the statute also protects the debtors from creditor debt-enforcement actions that otherwise could prematurely extract billions of dollars from the Commonwealth and inflict irreparable damage on Puerto Rico's economy. The statute includes unique attributes, such as an automatic stay on debt that was triggered once the bill was signed into law. The Oversight Board is the sole representative of any debtor entity in a Title III case, with the exclusive authority to propose a Plan of Adjustment. PROMESA Title VI provides an alternate, out-of-court restructuring process conditioned on voting thresholds.

It should be noted that the Oversight Board is an independent entity within the territorial Government, rather than a department, agency, establishment, or instrumentality of the Federal Government. It is statutorily charged with restoring fiscal responsibility and market access to the Commonwealth.

2.2 Fiscal plans, budgets, and other Oversight Board tools

Under PROMESA, covered territorial instrumentalities/entities can be required by the Oversight Board to prepare and submit annual fiscal plans, who then reviews and either rejects or certifies them. The Oversight Board certifies fiscal plans and budgets to achieve PROMESA's goals to provide a method to achieve fiscal responsibility and access to the capital markets. The Oversight Board then tracks Government implementation of the fiscal plans to ensure compliance.

The certification and timely implementation of fiscal plans and balanced budgets are invaluable tools to achieve fiscal responsibility and restore Puerto Rico's access to the capital markets. Among other things, the certified fiscal plans and budget provide for estimates of revenues and expenditures in conformance with agreed accounting standards; funds essential public services; provides adequate funding for public pension systems; provides for the elimination of structural deficits; improves fiscal governance, accountability, and internal controls; and provides for capital expenditures and investments necessary to promote economic growth. Fiscal plans provide a route to direct the economy and finances of the Government of Puerto Rico towards economic growth and fiscal accountability. This is crucial for Puerto Rico to avoid repeating the mistakes of the past.

To ensure that covered entities deliver against fiscal plan measures, the Oversight Board has a variety of potential tools available, including:

- **Setting budgets:** The Oversight Board can certify the budget of the Government and its instrumentalities by type of expense and fund type. The Oversight Board has required more detailed budgets to prevent certain expenditures inconsistent with the current fiscal plan, understand consultant spending and enable measurements and monitoring of federal consent decrees or requirements (e.g., special education, juvenile detention).
- **Budget and fiscal plan compliance:** Official letters are written by the Oversight Board to the Office of the Chief Financial Officer (OCFO) and agencies if something is not in compliance of certified budget and fiscal plans (e.g., letters pursuant to Sections 203 and 204 of PROMESA).
- **Approval and review of contracts, legislation, executive orders, administrative orders, rules, and regulations:** The Oversight Board must review and approve all contracts with a value of $10 million or more to ensure Fiscal Plan compliance, and has the authority to refuse contracts and suggest the terms the new contract is required to meet. In addition, the Oversight Board may select to review contracts below the $10 million threshold for these purposes, on a random basis or at its own discretion.
- **Recommendations:** Per Section 205 of PROMESA, the Oversight Board drafts letters to the U.S. President and Congressional leadership, outlining recommendations for fiscal and financial management practice improvements, requiring a response from the Governor.

- **Public hearings:** The Oversight Board can hold hearings with agency representatives to publicly discuss progress on efficiency measures and related matters (i.e., use of reapportionments, budget requests). In the last years, the Board has convened several public hearings to bring attention to core issues related to Government reform.
- **Implementation tracking with monthly and quarterly reporting:** Agencies receive a template that they must use to report on headcount, Key Performance Indicators (KPIs), and milestone implementation actions, among other requirements. Monthly reports are drafted evaluating implementation progress and budget to actual analysis.
- **Working group meetings:** Agencies/reforms meet with implementation team with prepared materials, answer questions and requests. Often, Oversight Board may invite the Secretaries and Executive Directors of agencies to present status of implementation of efficiency measures during such working group meetings.
- **Stakeholder Engagement:** The Oversight Board undertakes stakeholder engagement efforts throughout the year with members of the Government, private sector, and nonprofit sector of the Island. These efforts help the Oversight Board better understand stakeholders' opinions, concerns and values. This allows the Oversight Board to incorporate stakeholder input into PROMESA plans and processes. Stakeholders efforts include meetings, webinars, workshops, and public panel discussions.
- **Policy Research and Data Analysis:** The Oversight Board conducts research, public policy analysis, and program evaluation to help bring more informed policymaking to Puerto Rico. It also presents policy ideas, reform proposals, and data analysis to support the public debate about what changes Puerto Rico needs to prosper.[2]
- **Publication of documents:** The Oversight Board can publish any materials submitted to them by the Commonwealth Government.

2.3 Conditions for termination of the Oversight Board

The Oversight Board was designed to have a finite life, defined objectives, and defined tools and authorities to achieve those objectives. Every action taken by the Oversight Board over the past five years has been dedicated specifically and exclusively to completing its mission as stated in the law as soon as possible. The Oversight Board seeks to complete its work under PROMESA promptly, so that fiscal controls, fiscal sustainability, and economic prosperity and growth can return to Puerto Rico.

PROMESA is specific in terms of how and when the Oversight Board can be terminated. The two provisions, found in Section 209 of PROMESA, that define when the Oversight Board can be dissolved, were incorporated into the federal law to ensure the board disappeared, for good, once Puerto Rico's financial outlook stabilized and better financial management processes have been put in place.

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2 Financial Oversight and Management Board of Puerto Rico, Research And Public Policy Department

Section 209 of PROMESA (Termination of the Oversight Board) states the following:

An Oversight Board shall terminate upon certification by the Oversight Board that:

1) the applicable territorial government has adequate access to short-term and long-term credit markets at reasonable interest rates to meet the borrowing needs of the territorial government; and

2) for at least 4 consecutive fiscal years--

A. the territorial government has developed its Budgets in accordance with modified accrual accounting standards; and

B. the expenditures made by the territorial government during each fiscal year did not exceed the revenues of the territorial government during that year, as determined in accordance with modified accrual accounting standards.

EXHIBIT 7: REQUIREMENTS FOR THE TERMINATION OF THE OVERSIGHT BOARD

Category	Details	
1. Adequate access to credit markets at reasonable interest rates	Complete Sustainable Debt Restructuring	• Exchanged / new bonds trading well in the public markets • Interest from traditional, institutional municipal bond buyers • Evidence investors ready to invest in Puerto Rico again
	Timely Financial Reporting	• Publication of past due audited financials (ACFRs) • Reasonable expectations future audited financial (ACFRs) will be issued on a timely basis
2(A). The territorial government has developed its Budgets in accordance with modified accrual accounting standards for at least 4 consecutive fiscal years	Accrual budget	• Establishment of budget on accrual basis, not cash basis
	Revenue/Expenses	• Changes in revenues/expenditures should be monitored against the forecast during course of year making necessary adjustments
	Payroll Systems	• 5 different payroll systems must be integrated into central accounting and budget systems, improving ability to control and limit personnel spending
	Accounts Payable	• Maintain an accounts payable ledger
	Purchase Orders	• Registration of purchase orders, professional serviced contracts, prior to service being supplied
	Other Funds	• Funding sources outside of the General Fund must be budgeted/evaluated by OMB and Legislature, especially those that are comingled in TSA
2(B). Balanced budgets (expenditures did not exceed revenues) for least 4 consecutive fiscal years, as determined in accordance with modified accrual accounting	Accounting	• Monthly closing and bank reconciliations • Perform required activities to record cash transactions, A/P recording, budget transfers and month end close adjustments • Understanding of economic conditions affecting revenue generation • Measures to increase government efficiency and cost reduction
	Systems	• Up-to-date systemwide financial information system • Integration between various accounting systems shift from manually executed to using system capabilities • Visibility into all spending • Real time spend reporting and review by leadership
	Controls	• Adequate real time spending controls • Standardize Government-wide Financial accounting processes removing inconsistent adoption by agencies • Implement change management to achieve closing cadence

The Oversight Board has worked tirelessly to help the Government move quickly towards the accomplishment of all these requirements.

2.3.1 *Progress on requirement #1: Adequate access to credit markets at reasonable interest rates*

Sustainable debt restructuring

The Oversight Board has and is following a "once and done" approach to the restructurings, to ensure Puerto Rico will not be insolvent again. Together with the Government of Puerto Rico, the Oversight Board has made substantial progress in adjusting Puerto Rico's debt, the largest debt

DRA Ex. 236

restructuring in the history of the municipal bond market. The restructuring of more than a third of the outstanding debt has already been completed, totaling $27 billion, Plan Support Agreements have been announced for $35 billion in claims and over $50 billion in pension liabilities.

In May 2017, the Puerto Rico Government and the Government Development Bank (GDB) signed a Restructuring Support Agreement (RSA) with a significant portion of GDB creditors to restructure GDB's debt under PROMESA's Title IV. The RSA, as amended in April 2018, reduced about $5 billion of debt to about $3 billion, reducing the face value of claims by 45%. The debt payments are secured by GDB cash flow from certain legacy assets without recourse to the Puerto Rico Government. This restructuring cushioned municipalities by offsetting the loans they owed to the GDB by the full amount of their deposits at GDB.

In February 2019, the U.S. District Court approved the Plan of Adjustment for the Puerto Rico Sales Tax Financing Corporation (COFINA), the first debt restructuring completed under PROMESA's Title III. It reduced COFINA debt by $6 billion, from $18 billion to $12 billion. Furthermore, it reduced debt service payments by 32%, saving the people of Puerto Rico approximately $17.5 billion that will now be available to support the financial needs of the Commonwealth.

In August 2019, the Puerto Rico Aqueduct and Sewer Authority (PRASA) and the Government of Puerto Rico reached an agreement with the U.S. Environmental Protection Agency (EPA) and U.S. Department of Agriculture (USDA) to a consensual modification of about $1 billion of outstanding loans under PROMESA's Section 207. This agreement lowers PRASA's debt service payments on the U.S. Government program loans by about $380 million over the next 10 years and eliminates approximately $1 billion in guaranty claims against the Puerto Rico Government. Additionally, it provides PRASA with access to $400 million in new federal funding through various clean water programs over the next five years to support PRASA's ongoing effort to improve water quality and safety for the people of Puerto Rico.

On March 8, 2021, the Oversight Board filed an amended Plan of Adjustment (POA) to restructure approximately $35 billion of debt and other claims against the Commonwealth of Puerto Rico, the Public Buildings Authority (PBA), and the Employee Retirement System (ERS); and more than $50 billion of pension liabilities. The amended plan, filed with the U.S. District Court for the District of Puerto Rico, provides a path to exit bankruptcy as early as the end of calendar year 2021 and creates a foundation for Puerto Rico's recovery and economic growth. An agreement in principle has been reached with certain monoline bond insurers with clawback claims. Efforts to transform the agreement in principle into a binding agreement are ongoing. An agreement has been reached with holders of Employee Retirement System bonds as well. Mediation continues with holders of general unsecured claims, certain other monoline bond insurers with clawback claims, and creditors holding other claims against the Government of Puerto Rico.

Key to the sustainability of any debt restructuring is the growth of the Puerto Rico economy. The Oversight Board has stressed for the past five years that returning to economic growth requires structural reforms to enhance the reliability of power; improve educational outcomes, labor market participation and labor productivity; enhance the ease of doing business on the Island; and generate more effective returns on capital investments and infrastructure. All of these aim to strengthen Puerto Rico's competitiveness in the global marketplace, attract new private capital, the creation of jobs, and ultimately a better life for the residents of the Island.

Timely financial reporting

The requirement related to timely financial reporting includes expectations that the Government publish past due audited financials begin issuing audited financial statements on a best practice basis (e.g., issue audited financial statements within six months after the fiscal year ends).

The Government of Puerto Rico has yet to produce long past due Annual Comprehensive Financial Report (ACFRs) for FY2018-FY2020. The Oversight Board has continuously encouraged the Government to finalize and publish its past due audited financial statements, including spending time at two recent public board meetings on the topic and providing increased funding for required personnel at Hacienda. The Commonwealth published fiscal year 2017 audited financial statements on August 31, 2020, taking more than 1,158 days (~38 months) to issuance. According to a study by the Governmental Accounting Standards Board (GASB), state governments issued their annual audited financial reports (ACFRs) on average 189 days after fiscal year-end during 2012-2014 and 199 days during 2015-2017.[3] Best practice calls for annual comprehensive financial reports (ACFRs) to be made public approximately 180 days or 6 months after the close of the fiscal year. Some states, like Michigan, have taken less than 100 days to release their ACFRs.

To achieve timely financial reporting the Government must, among other things, provide a detailed timeline and implementation plan, positioning Hacienda to successfully oversee the publication of the ACFRs, and signing a multi-year master audit contract. Perhaps most importantly, the Government must transition to implementing monthly closing procedures over its books and records and implement strict monitoring over the process with consequences for agencies that fall behind. Without implementing these changes, ACFR issuance will continue to be delayed and unpredictable.

As seen in *Exhibit 8*, the Government is behind on meeting many of these requirements, but with steadfast political will and leadership, the Oversight Board is convinced that these objectives can be reached, past due ACFRs can be issued within the next two years, and a system can be put in place that assures continued timely issuance as expected by the credit markets.

2.3.2 Progress on requirement #2: Four years of budgets developed with modified accrual accounting principles and expenditures which have not exceeded revenues

Four years of developing budgets in line with modified accrual accounting standards

The Government is expected to develop and implement a budget in accordance with modified accrual accounting standards for four consecutive years, according to accounting practices recommended by the GASB for municipal financial statements, including by publishing ACFRs. There are numerous benefits of transitioning from cash accounting to modified accrual accounting. A modified accrual accounting method is more conservative since it requires recognition of revenues when measurable and promised payments when liabilities are incurred. Consequently, the books and records will present a more realistic picture of spending and help Puerto Rico avoid overspending and present an accurate financial picture to Government managers, taxpayers and other stakeholders. Furthermore, it would eliminate many one-time maneuvers and lead to genuinely balanced budgets once all the debt restructurings are consummated. The transition to modified accrual budgeting was one element that led to New York City's financial recovery in the 1970's, helping to establish stricter budgetary discipline on the city.

Four years of balanced budgets according to accrual based accounting method

Before PROMESA, Puerto Rico had a history of overstating revenues and understating, misstating, or not stating all of its expenditures in a given year. This lack of budgetary control enabled budgets which appeared to be balanced consistent with the Puerto Rico Constitution's requirements, to cause deficits and force borrowing, and resulted in the situation the Government faces today.

The key principles that will need to be met for the Government to achieve this requirement are the formulation of an accrual based budget, better monitoring of revenue and expenses,

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3 Financial Oversight and Management Board of Puerto Rico, Research and Public Policy Department reporting

integration of the payroll systems, maintenance of an accounts payable ledger, and registration of purchase orders and budgeting for all other funds, not just the General Fund.

To fully implement accrual budgeting, the Government would need to adopt policies and train employees to record expenses, make sure adjusting entries are communicated and coordinated across agencies, and shift to having accruals and interagency reconciliations automated. Furthermore, revenues and expenditures must be periodically reviewed against the forecast to respond to changes and there must be detailed resolution certifications and expense system registration. Additionally, payroll must be adequately tracked, controlled, and integrated. Accounts payable must be automated and follow clear procedures. Purchase orders and other encumbrances must be booked for the entire year, at the beginning of the year, and as many special revenue funds as possible must be eliminated.

The Government has unfortunately not yet demonstrated meaningful progress in many of the key requirements for the termination of the Oversight Board. As shown in *Exhibit 8*, rapid progress will be needed across a number of dimensions to meet the key requirements under PROMESA.

EXHIBIT 8: PROGRESS TOWARDS ACHIEVING KEY REQUIREMENTS FOR THE TERMINATION OF THE OVERSIGHT BOARD

● Not started ● Some Progress ● Completed

Requirement	Detail		Current Progress
Complete Sustainable Debt Restructuring	Exchanged/ New Debt	• Exchanged / new bonds trading well in the public markets	Some Progress
	Muni bond market/ buyers	• Interest from traditional, institutional municipal bond buyers	Not started
	Investors	• Evidence investors ready to invest in Puerto Rico again	Not started
Timely Financial Reporting	Timeline and Action Plan	• Provide detailed timeline and implementation plan for issuance financial statements	Some Progress
	Financial reporting division	• Adequately position Hacienda's financial reporting division to oversee completion of all financial reporting, including component units	Not started
	Multiyear master audit contract	• Secure multi-year contracts with auditors and other essential contractors in conformance with best practices	Not started
	Implement monthly closing procedures	• Short-term: Implement / monitor a rigorous process for circular letters, administrative determinations, procedures, and regulations (manual closings) • Medium-term: Implement ERP system (quarterly closing procedure) • Longer-term: ERP system fully implemented (monthly closing procedures)	Not started
	Strict monitoring and publish delays	• Set up strict monitoring and escalation procedures with consequences and published schedules noting agency and component unit delays	Not started
Budgets in accordance with modified accrual accounting standards	Accrual Budgeting	• Adopt policies and train employees to book budget and book expenses • Adjusting entries are communicated and coordinated across agencies • Accruals and interagency reconciliations automated	Not started
	Revenue/Expenses	• Incorporate a periodic review of revenues and expenditures against the forecast to respond to changes • Detailed resolution certifications and expense system registration	Some Progress
	Payroll Systems	• Appropriations for termination of payroll accruals • Integrate systemwide payroll system into a financial reporting system	Not started
	Accounts Payable	• Maintain government wide monthly accounts payable procedures • Automate process and journal entries	Some Progress
	Purchase Orders	• Book encumbrances for entire year when contract is approved • Multi-year contract encumbered at the beginning of subsequent years	Not started
	Other Funds	• Eliminate as many special revenue funds as possible; better maintained through annual General Fund appropriation procedures • Track and record all expenses and standardize chart of accounts	Some Progress
Implementing a balanced budget	Payroll spending	• Connect time and expense to payroll systems	Not started
	Closing of books	• Reconcile bank balances and monies held outside of the TSA • Issue consistent systemwide guidance	Not started
	Real time spending reports	• Perform quarterly budget to actual review by senior leadership • Issue public reporting and strategic guidance to stay within means	Some Progress
	Visibility into all funds	• Gain visibility into special revenue funds and federal funds • Require reporting and sweep back unused general fund appropriations	Not started
	Financial accounting systems	• Integrate financial systems • Ensure reporting is consistent across all agencies	Not started

The 2021 Fiscal Plan includes a number of related actions that the Government must take to create the capabilities and momentum toward achieving these objectives. A strong, legislatively established, centralized Office of the Chief Financial Officer (OCFO) as outlined in *Chapter 15* will create the framework for strong financial management across the ~100 agencies and public corporations that make up the Commonwealth. Civil service reform, with particular focus on

financial management roles, can also help the Government attract and retain the workforce needed to implement and sustain the changes needed.

Chapter 3. Fiscal Plan updates due to natural disasters and emergencies

In recent years, the people of Puerto Rico have endured a series of natural disasters and emergencies without precedent in modern history.

On September 6, 2017 and September 20, 2017, respectively, Hurricanes Irma and Maria struck Puerto Rico, causing unprecedented humanitarian, economic, and infrastructure-related damages and upending the daily lives of Puerto Rico's over three million residents. Thousands of residents were left homeless, basic utilities were completely shut down, and schools, hospitals, and businesses were destroyed. Tens of thousands of local residents fled the Island. The Federal Government's response has become one of the largest and most complex disaster relief efforts in U.S. history.

The damage inflicted on Puerto Rico by the Hurricanes required the March 2017 Fiscal Plan to be revised. Therefore, on October 31, 2017, the Oversight Board formally requested that the Government submit a revised Fiscal Plan for the Commonwealth and its instrumentalities based on the new post-hurricane realities. After months of hard work, engagement with stakeholders, and intense negotiations with the Government, the Oversight Board developed and certified the April 2018 Fiscal Plan to reflect the post-hurricane environment. This Fiscal Plan also provided for the implementation of incremental structural reforms, in particular focusing on improving the competitiveness of the local labor market.

As a result of Government and Oversight Board discussions concerning the necessary legislative actions to deregulate and make the private sector labor market more competitive, the Oversight Board certified an updated Fiscal Plan in May 2018. This Fiscal Plan provided for a series of investments that would be contingent upon the successful implementation of key labor market reforms. Unfortunately, the lack of political will to enact this much needed private sector labor reform required the Oversight Board to update and certify another Fiscal Plan in June 2018 to reflect the removal of this element of structural reform from the plan and the growth forecasts. The October 2018 Fiscal Plan was subsequently certified to reflect actual revenue and expenditure numbers, refined healthcare projections based on actuarial estimates, new federal funding estimates, and changes in the Government's economic growth policy objectives.

The budgetary process under PROMESA requires the annually-certified budget to be consistent with the certified Fiscal Plan. In light of the many variables in the forecasts, the Oversight Board has chosen to annually update and certify a Fiscal Plan for accuracy and to serve as the most updated information for the purposes of certifying an annual budget. As a result, prior to the adoption of the FY2020 Certified Budget, the Oversight Board certified the 2019 Fiscal Plan, which incorporated updates for new information and data from a wide variety of sources. It revised the macroeconomic and population forecast in light of slower disaster relief funding roll out, faster unwinding of the associated stimulus, and more recent federal and Puerto Rico economic statistics. It also updated the forecasted economic impact of structural reforms to reflect slower than expected implementation. Finally, it re-balanced spending across agencies to enable investments in police and public safety, healthcare, and education.

In December 2019, just after the Oversight Board and Government had launched the 2020 Fiscal Plan process, an earthquake registering at a magnitude of 4.7 on the Richter scale hit Puerto Rico. This earthquake represented one of 1,000 overall earthquakes of magnitude 3 or greater that would hit the Island over the next couple months, with six being over magnitude 5.5 and one being the most destructive in Puerto Rico's history. Hundreds of structures, including homes, local

government institutions, small businesses, and houses of worship, have been damaged or destroyed by these devastating shocks.

In March 2020, on top of the Hurricanes and earthquakes, Puerto Rico confronted the COVID-19 pandemic, which created an unprecedented public health crisis. As of April 2020, the Island had officially confirmed 1,539 cases and 92 deaths.[4] To counter the spread of the disease, the Government instituted the closure of businesses and established a curfew. The Oversight Board quickly made available $787 million in funds for the Government, individuals and businesses. These funds were used to provide: direct economic support payments to self-employed individuals and small businesses, bonuses to frontline workers (including, nurses, police officers, firefighters, emergency medical services personnel, among others), funding for medical supplies, support to municipalities, resources for PRDE to purchase equipment to facilitate distance learning, and coverage for other incremental expenditures, such as additional public safety investments, health services spending in corrections, and funding for UPR's COVID-19-related research and development.

Soon after, the U.S. Federal Government approved several pieces of legislation—including the Families First Coronavirus Response Act and the Coronavirus Aid, Relief, and Economic Security Act (CARES Act)—providing ~$18B in federal funds to the Island[5]. This relief package funded direct income support for individuals through expanded unemployment insurance benefits and a broad economic impact payments program, provided financial assistance to small businesses, included additional resources for education, healthcare, nutrition and housing assistance, delivered funds to support the local government, and supplied incremental funding to support strategic government services like transit and transportation, law enforcement, and justice.

It was in the midst of this unprecedented change to the economic and public health climate that the 2020 Fiscal Plan was certified. As with prior Fiscal Plans, it included updates for new information about government revenues, expenditures, and reform implementation efforts. It also included the projected impacts of the earthquakes and the COVID-19 pandemic. Given the pressures facing the Government in the context of the crisis, the Fiscal Plan provided a one year pause in incremental government efficiency savings expectations to allow the Government to focus on the implementation of needed efficiency and structural reforms. In light of the healthcare focus that the situation required, the 2020 Fiscal Plan included a full set of investments that aimed to strengthen the healthcare system in Puerto Rico, comprising capital expenses to enhance and expand health facilities across the Island, improve its digital infrastructure, and fund newly created programs designed to extend healthcare services coverage in public schools and rural areas. Finally, the 2020 Fiscal Plan also provided new investments to further bolster the education and public safety systems; funds to support municipal consolidations and to expand the technology sector and broadband access.

Roughly a year after the certification of the 2020 Fiscal Plan, the U.S. mainland and Puerto Rico have seen several changes. The effects of the COVID-19 public health crisis have been far reaching and devastating – both as a humanitarian crisis and economically. As of March 2021, Puerto Rico has experienced 97,713 cases of COVID-19 and 2,113 deaths due to the disease.[6] The economy has suffered: as the risks of travel kept tourists at bay, hotel registrations fell by 95% from February to April 2020, and are just now starting to recover.[7] Unemployment in Puerto Rico reached ~460,000 individuals at its peak, two times the previous number of individuals unemployed.[8]

4 Gobierno de Puerto Rico Departamento de Salud. "Informe de casos positivos COVID-19 (30 abril 2020)," Accessed 8 April 2021
5 This includes funds for Unemployment Insurance benefits, which are funded by both, the Federal Government and the regular local program funds
6 Gobierno de Puerto Rico Departamento de Salud, "Informe de casos positivos COVID-19 (31 marzo 2021)" Accessed 12 April 2021
7 Discover Puerto Rico, "Industry Update COVID-19 – May 1, 2020", 2020
8 Gobierno de Puerto Rico Departamento del Trabajo y Recursos Humanos, "Empleo y Desempleo en Puerto Rico," in Información del Mercado Laboral, 2021, and U.S. Bureau of Labor Statistics, "Employed persons by class of worker and part-time status" 2021

The effects of this sudden constriction in household income was felt across the Island; retail sales plummeted in April 2020 to just 38% of February 2020 levels, the lowest since 2012.[9]

Fortunately, vaccinations became available on the Island at the end of December 2020. As of April 13, 2021, Puerto Rico ranks in the top 6 globally for vaccinations[10], with more than 16% of the total population fully vaccinated.[11] The Island also received additional federal support, with the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA)[12] and American Rescue Plan (ARP) Act bringing around $7 and $18 billion[13], respectively, in federal funding to be available for recovery efforts in 2021. Significantly, the ARP Act created new and permanent economic support programs for the Island: an expanded Earned Income Tax Credit (EITC) program, with up to $600 million in federal support, and permanent expansion of eligibility criteria of the Child Tax Credit (CTC). Both are projected to have permanent effects on income and growth, and the EITC expansion is expected to support timely realization of the human capital and welfare structural reform benefits. Finally, Puerto Rico saw a gubernatorial transition, with many agencies still working to return to normal while experiencing new leadership and staff.

The 2021 Fiscal Plan, like previous Fiscal Plans, includes updates for new information about the macroeconomic environment as well as Government revenues, expenditures and reform efforts. The Plan accounts for the effects of prolonged heightened unemployment rates on Island, as well as the impacts of federal and local stimulus countering economic shocks from COVID-19. The Plan outlines recent implementation progress on operational and structural reforms, and restores fiscal measures for FY2022 that had been paused in FY2021. Finally, the Plan includes targeted investments in Civil Service Reform and stated Government needs.

Looking ahead, the Island is still in need of support as it recovers from the pandemic. The Government must center all efforts on making the necessary changes to how the Government operates and delivers government services, as well as taking steps to improve the conditions for investment in the economy in a post-COVID-19 world. Now, more than ever, it is essential that the Government focus all of its attention and capacity on implementation to better serve the people of Puerto Rico in need of efficient government services and to eliminate barriers to economic development and recovery from the unprecedented economic damage caused by this series of disasters.

9 Banco de Desarrollo Económico para Puerto Rico, "Retail Sales," on Puerto Rico Economic Indicators, December 2020
10 Covid-19 vaccine tracker: the global race to vaccinate, Financial Times. Accessed 13 April 2021
11 Centers for Disease Control and Prevention, "COVID-19 Vaccinations in the United States" on COVID Data tracker. Accessed 12 April 2021
12 Representing Divisions M and N of the Consolidated Appropriations Act, 2021 H. R. 133
13 These amounts include funding for Unemployment Insurance benefits, which are funded by both, the Federal Government and the regular local program funds

PART II. Puerto Rico's path to fiscal and economic sustainability

Chapter 4. Macroeconomic and demographic trajectory

The 2021 Fiscal Plan includes an updated macroeconomic forecast reflecting the abrupt impact of the COVID-induced recession at the end of FY2020, followed by a rebound and recovery in FY2021 and expected to continue into FY2022.

The baseline economic outlook model, which forecasts real gross national product (GNP) growth, primarily relies on a comprehensive dataset of the Puerto Rican economy from 1965 to 2017. It includes dozens of variables that collectively describe the Puerto Rican economy (e.g., growth, population, capital stock, etc.), and is largely impacted by four major factors: (a) the pre-hurricane trendline of Puerto Rico, (b) impacts from the shocks of hurricanes, earthquakes, and COVID-19 on economic activity, employment and the capital stock, (c) the stimulative impact of federal and local relief assistance for hurricanes, earthquakes, and COVID-19 (discussed in *Section 4.2.3*), and (d) proposed government efficiency measures, investments, and structural reforms (discussed in *Part IV*).[14]

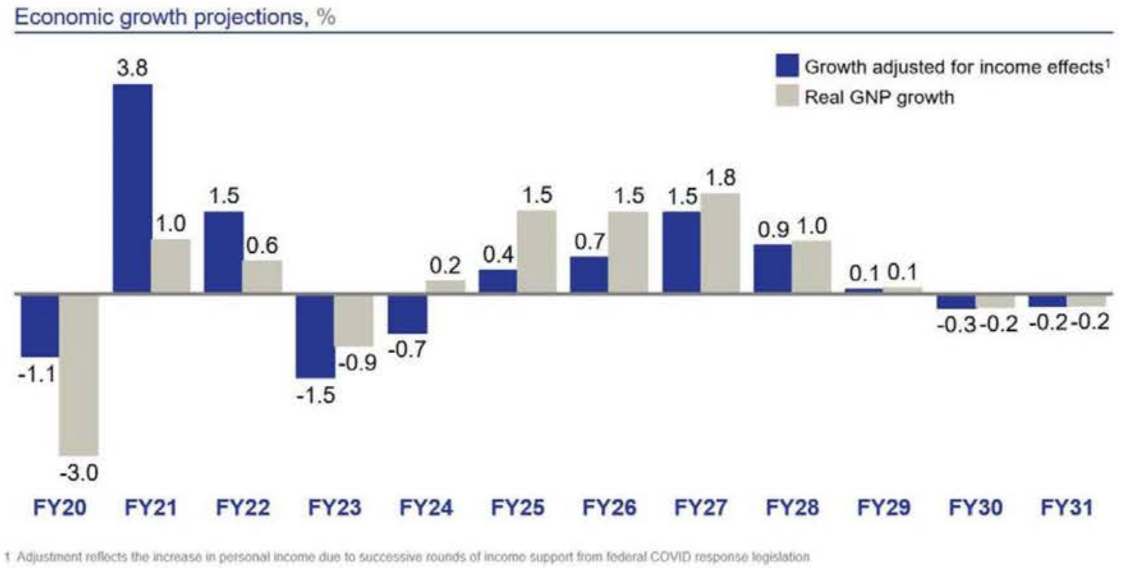
The COVID-19 pandemic has been a devastating and unprecedented health crisis for the Island, causing over 2,000 deaths and spikes in unemployment due to impacts on the tourism industry and Government lockdowns put in place to curb the spread of the disease. The shock of the pandemic on employment, as well as related local and federal stimulus funding, impacted Puerto Rico's economy in a variety of dimensions and directions. While economic activity was severely reduced, extraordinary unemployment insurance and other direct transfer programs more than offset the estimated income loss due to less activity. As a result, personal income has temporarily increased on a net basis.

The 2021 Fiscal Plan has incorporated a real growth series that is adjusted for these short-term income effects for the purposes of forecasting tax receipts. The increased level of income is associated with higher levels of consumption and income tax collection in the short-term.

Exhibit 9 shows the real GNP growth rate projection and the adjusted growth rate with income effects, after the impact of measures, structural reforms, and disaster relief funding.

14 The forecast relies on a 60-year comprehensive dataset and applying statistical regressions to show the effects of multiple yet distinct inter-related components of past hurricanes, exogenous developments, and economic policies on growth and inflation

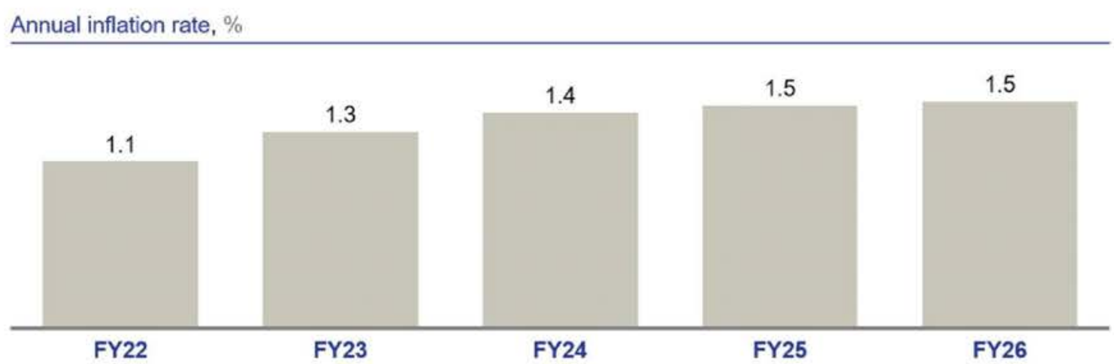
EXHIBIT 9: ECONOMIC GROWTH RATE AFTER MEASURES, STRUCTURAL REFORMS, AND DISASTER RELIEF FUNDING



Additionally, the 2021 Fiscal Plan includes the most recently published revision to the International Monetary Fund (IMF) Fiscal Affairs Department's estimates of capital depreciation. The IMF publishes estimates of capital depreciation of public and private capital stocks, as well as capital stocks from public private partnerships (PPPs), drawn from analyzing a comprehensive sample of around 170 countries starting from 1960 until 2017. The IMF now estimates a lower rate of depreciation, which in turn increases Puerto Rico's capital stock and consequent expected growth rate going forward.

The 2021 Fiscal Plan also uses Congressional Budget Office (CBO) U.S. inflation projections along with global forecasts of oil and food prices from the IMF's World Economic Outlook. Puerto Rico inflation projections are summarized in *Exhibit 10* and have been updated to reflect the latest inflation trend prior to the onset of COVID-19, as well as the collapse in world oil prices and the demand shock due to COVID-19.

EXHIBIT 10: ANNUAL PUERTO RICO INFLATION RATE



4.1 Impact of the global COVID-19 pandemic

The COVID-19 pandemic created economic dislocation around the world. For Puerto Rico, the economic shock from COVID-19 came on top of multiple prior shocks in the last four years. Hurricanes Irma and Maria struck with devastating impact in September 2017, and the southern part of the Island was hit by the strongest earthquakes that the Island had seen in decades at the end of 2019. With the onset of the pandemic the economy of Puerto Rico virtually ground to a halt, as the public health imperative for people to stay home has left all but the most essential workers unable to travel to their places of business. The economy responded to the vast amount of local and federal stimulus funding, and an economic recovery is now underway, though there is still significant uncertainty about the future of the global, U.S. mainland, and Puerto Rican economies.

The Oversight Board has consulted numerous data sources and expert economists in both Puerto Rico and the U.S. mainland to obtain the best insights possible into the current economic conditions and prospects for recovery. However, there is no precedent for COVID-19 in the historical dataset that informs the 2021 Fiscal Plan's macroeconomic model. As such, the Oversight Board recognizes that there is considerable uncertainty around the near-term economic outlook, as even today there remains a wide range of potential public health and economic outcomes for Puerto Rico, the nation, and the world. Notwithstanding this uncertainty, the Oversight Board has worked to develop a reasonable forecast of the path forward with the information and experience currently available.

4.1.1 Impact of COVID-19 on the U.S. economy

Consistent with past practice, the Oversight Board primarily relies on U.S. government economic forecasts to establish the general economic conditions within which the economy of Puerto Rico evolves. The 2021 Fiscal Plan uses the latest Congressional Budget Office forecasts for U.S. GDP growth and inflation available as of April 2021[15] as key inputs to create the forecast for the economy of Puerto Rico.[16] CBO currently projects a stronger U.S. economy than it did in 2020, in large part because the downturn was not as severe as expected and because the first stage of the recovery took place sooner and was stronger than expected. These estimates are based on the assumption that the U.S. real gross domestic product (GDP) will reach pre-pandemic levels by this summer and employment levels will return to pre COVID-19 levels by 2024, as vaccination stays on track with what was observed by the beginning of February. The revised higher U.S. growth from CBO also translates into higher growth and revenues for the Commonwealth, as U.S. real GDP growth is a major input for the macroeconomic projection used in the 2021 Fiscal Plan.

4.1.2 Specific impacts of COVID-19 on the economy of Puerto Rico

After incorporating U.S. mainland growth estimates, the 2021 Fiscal Plan factors in certain economic effects that are specific to Puerto Rico. The approach accounts for two primary factors, which are outlined below: (i) lost income from an enduring spike in unemployment, and (ii) the relative amount of income that will be replaced by extraordinary Federal Government support.

To determine the lost income due to COVID-19, the Oversight Board has analyzed available public and private sector forecasts of U.S. unemployment and data from the Government of Puerto Rico and the U.S. Department of Labor on initial unemployment claims.

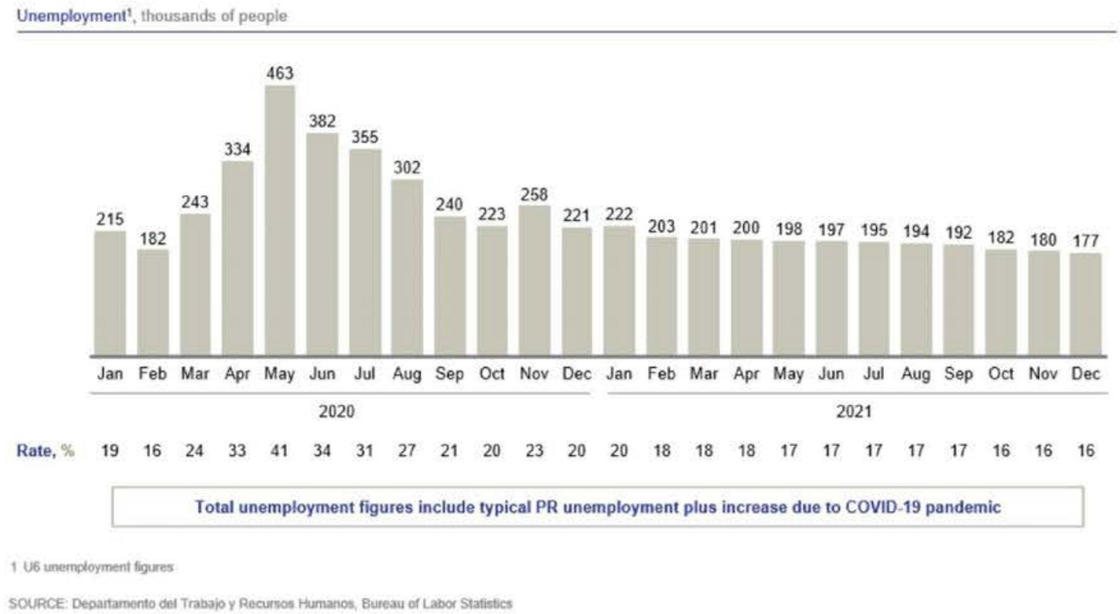
Exhibit 11 illustrates the unemployment forecast that the 2021 Fiscal Plan uses to estimate income loss on the Island. The forecast includes a gradual easing of unemployment figures through

[15] The CBO last published projections for U.S. GDP growth in March 2021.

[16] Congressional Budget Office, Long-Term Economic Projections, March 2021.

FY2021, though unemployment levels at the end of FY2021 are projected to be around 2.5 percentage points higher than at the onset of the crisis.

EXHIBIT 11: PUERTO RICO UNEMPLOYMENT FORECAST



In light of the economic hardship for the people of Puerto Rico, and the U.S. as a whole, the Federal and local governments have stepped in to provide much needed economic support for residents on the Island. The following sections describe how the 2021 Fiscal Plan treats the combined impact of ongoing disaster relief funding, as well as more recent economic support in light of COVID-19.

4.2 Federal and local relief spending for Hurricanes Maria and Irma, earthquakes, and the global COVID-19 pandemic

4.2.1 Disaster relief spending from the 2017 hurricanes

Disaster spending tends to have a short-term stimulative effect on an economy post-crisis, though not in the long term. In Puerto Rico, the level of committed public and private disaster relief spending is significant when compared to the overall size of the economy. Public and private disaster relief spending has and will continue to impact the economy in two ways:

- **Stimulative impact from post-hurricane disaster relief spending coming from aid packages equivalent to more than 100% of the Island's GNP.** This stimulus can come in multiple forms, such as construction companies hiring local, unemployed workers or workers from the mainland U.S. paying local withholding taxes and spending money for food and lodging.
- **Expected reconstruction of the capital stock on the Island.** The 2021 Fiscal Plan factors in significant damage to capital stock that is repaired, in large part, by this extraordinary infusion of federal and private monies, contributing to growth in the long-term.
- **The 2021 Fiscal Plan projects that ~$84 billion of disaster relief funding in total,** from federal and private sources, will be disbursed in the reconstruction effort over a period of 18 years (FY2018 to FY2035). It will be used for a mix of funding for individuals (e.g.,

reconstruction of houses, personal expenditures related to the hurricane such as clothing and supplies), funding for the public (e.g., reconstruction of major infrastructure, roads, and schools), and to cover part of the Commonwealth's share of the cost of disaster relief funding (recipients often must match some portion of federal public assistance spend) (*Exhibit 12*).[17]

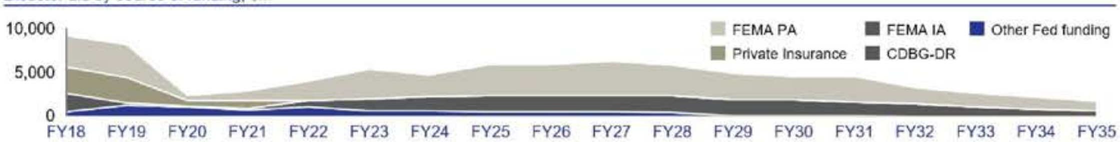
Of the total, ~$47 billion is estimated to come from the Federal Emergency Management Agency (FEMA) Disaster Relief Fund (DRF) for Public Assistance, Hazard Mitigation, Mission Assignments, and Individual Assistance. An estimated $7 billion will come from private and business insurance pay outs, and $8 billion is related to other sources of federal funding.

The 2021 Fiscal Plan includes ~$20 billion from the federal Housing and Urban Development (HUD) Community Development Block Grant - Disaster Recovery (CDBG-DR) program, of which ~$2.7 billion is estimated to be allocated to offset the Commonwealth and its associated entities' expected FEMA-related cost-share requirements.[18] This portion of CDBG-DR funding will go towards covering part of the ~10% cost-share burden on expenditures attributable to the Commonwealth, PREPA, PRASA, and HTA from FY2019 to FY2032. The 2021 Fiscal Plan allocates $4.2 billion for Puerto Rico's cost-match responsibility. After the CDBG-DR funds, out-of-pocket cost-share is reduced to $1.5 billion for Puerto Rico, of which $1 billion is attributable to the Commonwealth.

EXHIBIT 12: PROJECTED PRIVATE AND PUBLIC DISASTER RELIEF FUNDING ROLL OUT

	FY18, $M, %	FY19, $M, %	FY20, $M, %	FY21, $M, %	FY22, $M, %	FY23, $M, %	FY24, $M, %	FY25-FY35 $M, %	Total, $M	Total, %
FEMA Public Assistance, Hazard Mitigation, Mission Assignments¹	3,607	3,773	544	1,028	2,106	3,309	2,440	29,070	45,877	55%
	8%	8%	1%	2%	5%	7%	5%	63%		
FEMA Individual Assistance¹	2,050	241	145	52	50	50	-	-	2,587	3%
	79%	9%	6%	2%	2%	2%	0%	0%		
CDBG-DR	-	-	-	125	737	1,328	1,618	16,416	20,223	24%
	0%	0%	0%	1%	4%	7%	8%	81%		
Private insurance	3,001	2,895	606	936	-	-	-	-	7,437	9%
	40%	39%	8%	13%	0%	0%	0%	0%		
Other federal funding	509	1,237	1,014	704	1,058	632	624	1,963	7,740	9%
	7%	16%	13%	9%	14%	8%	8%	25%		
Total	**9,168**	**8,146**	**2,308**	**2,844**	**3,950**	**5,318**	**4,681**	**47,449**	**83,865**	**100%**
CDBG cost share	-	-	-	21	96	177	216	2,700		

Disaster aid by source of funding, $M



1 Includes federal assistance for 2019/2020 earthquakes

The major sources of disaster relief funding are detailed below:

- **FEMA Disaster Relief Fund:** FEMA provides Individual Assistance to individuals and families who have sustained uncovered losses due to disasters. FEMA also provides Public Assistance to state and local governments and certain types of private not-for-profits for

17 Puerto Rico's cost-match responsibility was estimated using FEMA-provided data, adjusted by category as necessary for waivers and exceptions

18 Estimate based on early assessment of CDBG-DR and CDBG-MIT Action Plans for Puerto Rico (with public data as of March 15, 2021), as well as patterns of cost share coverage from CDBG-DR in previous storms

debris removal, emergency protective measures, and permanent repair to damaged or destroyed infrastructure. Through both its Public Assistance Program and Hazard Mitigation Grant Program, FEMA funds projects to reduce or eliminate long-term risks to people or property from future disasters.[19]

- **The U.S. Department of Housing and Urban Development (HUD) CDBG-DR:** HUD provides CDBG-DR funding that can be used for assistance to individuals, businesses, state agencies, non-profit organizations, and economic development agencies. Funds are to be used in the most impacted and distressed areas for disaster relief, long-term recovery, restoration of infrastructure, housing assistance, and economic revitalization. The 2021 Fiscal Plan uses Action Plans approved by HUD to estimate the allocation of these funds, with ~$10 billion for disaster relief related activities, ~$8 billion to be used towards mitigating risks and potential losses in the event of a future disaster and ~$2 billion expected to be used to repair the Island's electric infrastructure. The total ~$18 billion in disaster relief and mitigation funds include ~$2.7 billion to cover cost-share for the Commonwealth and its instrumentalities.[20]

- **Private insurance funding:** Large personal property and casualty losses have been incurred in the aftermath of Hurricanes Maria and Irma. An analysis of data from the Office of the Insurance Commissioner of Puerto Rico, adjusted for self-insured and other types of coverage, was used to determine the amount that has been paid out to individuals and businesses for major damages.

- **Other supplemental federal funding:** Additional federal funding has been appropriated to various agencies and projects in Puerto Rico following the hurricane. This money is directed at a wide range of recovery efforts, from reconstruction of damaged buildings (for example, funding to repair damage to Job Corps centers in Puerto Rico) to funding for health programs and environmental management (e.g., U.S. Department of Agriculture (USDA) funding to repair water systems in rural areas) to additional funds for the Nutritional Assistance Program (NAP).

Disaster roll out for FEMA funds has been projected by subcategory to account for differences in when funds are spent:

- Individual Assistance from FEMA was spent in the immediate aftermath of the storm

- Public Assistance Categories A & B and Mission Assignments are used for debris removal and emergency work, and therefore exhausted in the early years of the recovery

- FEMA Categories C-G and Hazard Mitigation are longer-term funding streams that are spread out over 18 years, based on the latest estimates regarding the time that it will take to finalize reconstruction

The 2021 Fiscal Plan incorporates the available data from the Central Office for Recovery, Reconstruction, and Resiliency (COR3) and Vivienda on disbursements of FEMA and CDBG-DR funds (i.e., for FY2018 to the first half of FY2021). The roll out of remaining FEMA funds is informed by the historical disbursement pace of FEMA funds in Puerto Rico, spending patterns in other jurisdictions impacted by major storms (e.g., Hurricane Katrina), and the spend plans developed by major subrecipients (e.g. PREPA, PRASA) specifically for the use of FEMA public assistance funding received. In the case of CDBG-DR funds, they are assumed to be disbursed through FY2035, informed by Puerto Rico Department of Housing's latest projections, with program types as published in the latest available Action Plans.

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19 The 2021 Fiscal Plan does not attribute economic impact to FEMA's Administrative funding, which is used for FEMA's personnel (primarily outside of Puerto Rico), travel, and other internal costs

20 As per the Puerto Rico Disaster Recovery Action Plan, April 2020, "the cost share matching requirements of many of these [FEMA] programs create a financial burden on subrecipients that will dramatically hinder the recovery process without supplemental funding. To substantially reduce this burden, PRDOH intends to leverage CDBG-DR to meet these matching fund requirements…"

The 2021 Fiscal Plan posits that, based on how disaster relief funds are spent, these funds will impact the economy in various ways: to build the capital stock of the Island through constructing and repairing buildings or utilities, to directly impact the economy through spurring consumption of goods and services on the Island, or to fund programs and services on the Island. The 2021 Fiscal Plan estimates a different rate of pass-through to the economy for each of these different types of funding as follows:[21]

- A 15.5% pass-through rate is assumed for funding that is used to construct and repair utilities, given the reliance on specialized labor and materials for such projects (e.g., FEMA Category F Public Assistance funding towards constructing public utilities). The rest of this funding flows to the Puerto Rico capital stock and therefore contributes to long-term growth.
- A 23.5% pass-through rate is used for funding that is employed to construct and repair residential, commercial, and school buildings given the ability to rely more on local labor and materials (e.g., repair to public facilities damaged by the storm). The rest of this funding flows to the Puerto Rico capital stock and therefore contributes to long-term growth.
- A 23.5% pass-through rate is assumed for funding that is directed towards programs and services (e.g., private insurance payments to reimburse personal auto expenditures), as this funding hits the Puerto Rico economy through the labor associated with importing and transporting. This type of spending does not contribute to the capital stock on the Island, and therefore does not contribute to long-term growth.
- A 100% pass-through rate is assumed for funding that is used directly and in full to replace income or stimulate spending on goods and services originating on the Island (e.g., disaster nutrition assistance). This type of spending does not contribute to the capital stock on the Island, and therefore does not contribute to long-term growth.
- CDBG-DR funds put toward cost-share are not passed-through to the economy. These funds are used towards the local share of FEMA projects whose value is already accounted for in the respective categories.

The 2021 Fiscal Plan also projects that $750 million in working capital will be made available to address the liquidity constraints associated with the reimbursement nature of disaster relief programs. This will help to accelerate FEMA-approved reconstruction projects, particularly for permanent projects.[22]

4.2.2 Federal and local economic support in response to the earthquakes

As shown in *Exhibit 12*, funding for the 2019 and 2020 earthquakes includes $947 million in Public Assistance funding, of which $440 million is for Category B – Protective Measures, $231 million is for Category E – Public Buildings, and $101 million is for Public Assistance Management Costs. The remaining amounts are divided between Hazard Mitigation ($167 million), Individual Assistance ($103 million), and Mission Assignments ($6 million). The 2021 Fiscal Plan applies a 23.5% pass-through rate on these funds as they are directed toward the reconstruction of public buildings and facilities (see *Section 4.2.1*). The earthquake-related federal funding is assumed to impact the economy from FY2021 through FY2023.

4.2.3 Federal and local economic support in response to the COVID-19 pandemic

In response to the COVID-19 pandemic, both the Federal Government and Puerto Rico Government have launched major relief packages to contain and mitigate the spread of the virus, support residents and frontline workers, and help the Island's economy rebound.

21 Estimated using local contracts for PREPA, residential construction and school construction. These contracts were estimated to have between 10% and 18% pass-through on the economy, respectively, which was then augmented by 5.5% average spend on transportation and logistics on construction projects, which rely on 100% domestic labor

22 The working capital facility is considered a use of the Commonwealth balance sheet, not a Fiscal Plan expense

There have been multiple rounds of federal assistance which have included direct assistance to individuals and families, as well as funding provided to local governments to assist with pandemic response.

On March 18, 2020, the Families First Coronavirus Response Act was signed into law. The bill includes free COVID-19 testing for uninsured individuals, emergency paid sick leave, expanded family and medical leave programs, unemployment assistance, food aid, and federal funding for Medicaid.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security ("CARES") Act was signed into law. The relief package allocated an estimated $2.2 trillion to battle the harmful effects of the COVID-19 pandemic. The package was the largest fiscal stimulus package in modern American history and aimed to financially support both governments and businesses, provide relief to individuals, and expand COVID-19 response measures, as well as build future resiliency. The law provided $150 billion of direct support to state and local governments. In addition, eligible individuals received a $1,200 direct payment, as well as an additional $500 for each dependent child, in each case subject to income phase-outs. The law also provided additional unemployment insurance benefits for individuals impacted by COVID-19, including incremental benefits of $600 per week through July 31, 2020 and a 13-week extension in the amount of time that an individual could collect benefits (from 26 to 39 weeks). On April 24, 2020, Congress passed the Paycheck Protection Program and Health Care Enhancement Act, which extended certain provisions of the CARES Act. This package provides an additional $482 billion for small businesses, healthcare providers, and expanded testing to address the COVID-19 pandemic.

On April 2, 2020, through collaboration with the Puerto Rico Government, the Oversight Board certified a $787 million emergency measures support package, which offered direct assistance to workers and businesses (see *Exhibit 13*). The package was funded through $500 million of incremental new spending (made available via a special appropriation), $131 million for education related materials through existing federally-funded government contracts, and $157 million through a reapportionment within the FY2020 Commonwealth General Fund budget.

EXHIBIT 13: PUERTO RICO EMERGENCY MEASURES SUPPORT PACKAGE PROVISIONS

	Category	Description	Total allocated, $M	Disbursed as of April, $M
Direct Payment to Self-Employed	Self-Employed	$500 one-time cash payment for approximately 200,000 self-employed individuals	100.0	94.4
Direct payment to small businesses	Small businesses	$1,500 one-time cash payment for approximately 40,000 small businesses	60.0	59.8
Bonus for Medical and Support Staff	Public Nurses	$4,000 bonus per nurse (not including 272 Dept. of Correctional Health nurses)	23.2	14.9
	Private Sector Nurses	Bonus for private sector nurses	73.4	73.3
	Professional services nurses	Bonus for professional services nurses	22.6	13.8
	Dept of Correctional Health nurses	$4,000 bonus per nurse	1.1	1.0
	Technicians	$2,500 bonus for 600 technicians	1.5	0.1
	Others	Public sector pharmacists (116), medical technologists (3,834), Residents-MD (605)	4.8	4.2
Bonus for Certain DPS Employees	EMS personnel	581 staff	2.0	1.7
	Police Officers	11,650 front office roles (does not include 600 currently reported under leave of absence)	46.6	45.2
	Firefighters	1,455 front office roles (does not include 65 reported under leave of absence)	5.1	5.1
	Emergency Management	112 front office roles (does not include 12 reported under leave of absence)	0.4	0.4
	911 service	154 front office roles (does not include 2 reported under leave of absence)	0.5	0.5
	Special Investigations Unit	74 front office roles	0.3	0.1
	Forensics	220 front office roles	0.8	0.8
	Municipal police	$4,000 bonus for 3,428 officers	11.8	11.2
	Municipal firefighters	$3,500 bonus for 50 officers	0.4	0.1
Bonus for Court Staff	Court staff on duty	$1,000 bonus for 400 officers	0.8	0.8
Bonus for Hacienda Internal Revenue Agents	Internal revenue agents on duty	$2,000 bonus for 250 agents	0.5	0.5
Materials for the Department of Education	Dept. of Education teachers, students, and directors	Purchase of tablets, software, training for approximately 325,000 individuals	124.3	52.0
		Materials for 159,330 individuals will be paid by the U.S. Department of Education through two contracts	130.6	124.0
Hospital Investments	Public Hospitals	$15M per month for two months for medical supplies not directly related to COVID-19	30.0	13.5
Public Safety Investments	Department of Public Safety	$20M for equipment and capital expenditures	20.0	7.3
Support to the Municipalities	Municipalities	$50M per month for two months based on population by municipality (3-tier division)	100.0	100.0
Bonus for Corrections Employees	Department of Corrections	$3,500 bonus per front-line Corrections staff	16.8	15.0
	Correctional Health	$3,500 bonus per front-line Correctional Health staff (non-nurses)	0.5	0.4
HTA	Cost of moratorium on tolls	Loss of outstanding $3M monthly receipts for two months	6.0	0.6
UPR	UPR COVID-19 R&D	Funding for COVID-19-related research and development in UPR	1.7	0.0
Reserve	Reserve	Reserve (will be transferred to first responders and healthcare agencies on an as-needed basis to cover any deficiency in the distribution of the cash incentives	2.0	1.8
Total Local Funding			**787.7**	**643.6**

These funds have played an essential role in helping to mitigate the unprecedented economic damage from the sudden economic shock caused by the pandemic.

On December 27, 2020, the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSA) was signed into law. The law provided an additional $900 billion in COVID-19 relief. The CRRSA Act allocated no additional funds to states and territories, but it extended the deadline to use Coronavirus Relief Funds, Title V of the CARES Act, by one year. It also provided economic support to businesses and funding to promote testing, contact tracing and vaccine distribution. The 2021 Fiscal Plan includes an estimate of what portion of these federal funds are estimated to be allocated to Puerto Rico.

On March 11, 2021, the American Rescue Plan (ARP) Act of 2021 was signed into law. This COVID-19 relief package allocates $1.9 trillion to provide direct relief to Americans, reopen schools, and support a national vaccination program. Major components of the bill include:

- **Economic Impact Payments (EIP):** Eligible individuals will each receive a $1,400 direct payment, as well as an additional $1,400 for each dependent, in each case subject to income phase-outs. For example, married filers with two dependents that qualify for the program will receive $5,600. It is estimated that more than 85% of households will receive a direct payment. Additionally, the definition of qualifying dependents expanded to include full-time students younger than 24 as well as any adult dependents such as adults with disabilities or grandparents.

- **Expanded Unemployment Benefits:** The law extends the current, expanded unemployment benefits through September 6, 2021 to continue addressing unemployment caused by the COVID-19 public health emergency. This extension includes the Pandemic Unemployment Assistance (PUA), the Federal Pandemic Unemployment Compensation (FPUC), and the Pandemic Emergency Unemployment Compensation (PEUC). Furthermore,

the law extends the Families First Coronavirus Response Act (FFCRA) unemployment provisions that ensure full federal financing of extended benefits through September 6, 2021.

- **Child Tax Credit (CTC):** The bill permanently removes the provision that requires a three (3) child minimum for Puerto Rico residents to claim the Child Tax Credit, and removes the phase-in for the credit for calendar year 2021. The Child Tax Credit typically begins phasing in for incomes above $2,500, at a rate of 15% per dollar above the $2,500 threshold until the maximum credit is reached. When filing federal taxes for tax year 2021, Puerto Rico residents below the phase-out rate will receive the full Child Tax Credit for all children. Additionally, and for tax year 2021 only, eligible filers will receive an increased Child Tax Credit of $3,600 per child under six (6) years of age and a Child Tax Credit of $3,000 per child six (6) years of age through 17 years of age. For example, married filers below the phase-out rate with children aged four (4) and twelve (12) will receive $6,600. When filing federal taxes for tax year 2022, the Child Tax Credit for Puerto Rico families is reduced back to $1,400 per child, but the three-child minimum requirement has been permanently lifted. This means that when filing federal taxes for tax year 2022, the same family as before (given the family has enough income to be above the phase-in level), now with children aged five (5) and thirteen (13) will receive $2,800. Under the previous regulations, that family would not have been eligible for any Child Tax Credit.

- **Earned Income Tax Credit (EITC):** In the mainland, the ARP significantly increases the maximum credit amount for previously excluded adults without children for tax year 2021. For Puerto Rico, the law includes up to $600 million in annual federal fund matching to incentivize the Government to permanently expand the local EITC program. That amount would be delivered in the form of a reimbursable grant equivalent to three times (3X) the local spending, and indexed for U.S. inflation after the first year, thereby drastically expanding the size of the EITC program (which is currently supported by only $200 million per year in local Government funds) on Island.

- **Elementary and Secondary School Emergency Relief Fund (ESSER):** The law expanded upon the education provisions outlined in the CRRSAA and provides additional funding to elementary and secondary education, which remains available for obligation through September 30, 2023. The use of these funds remains flexible, meaning State Education Agencies (SEAs) and Local Education Agencies (LEAs) can use them to address a variety of needs. These include, but are not limited to, addressing learning loss, maintaining social distancing, hiring support staff, and enhancing ventilation systems. In April 2021 the U.S. Department of Education released additional formal guidance on how to calculate the Maintenance of Effort (MOE) requirements associated with this fund and the Governor's Emergency Education Relief (GEER) Fund, also provided under the CARES and CRRSA Acts. The guidance explains how states and territories should determine what level of state spending on elementary, secondary, and higher education is required in order to comply with the MOE requirements in these relief packages, as well as procedures for seeking waivers. The Oversight Board is analyzing this guidance to determine what, if any, implications the MOE requirements have on the Commonwealth, UPR, and PRDE funding provided in the 2021 Fiscal Plan and FY2022 Commonwealth Budget.

- **State and Local Aid:** The law includes $360 billion in direct support to state and local governments. Puerto Rico's share of funds are split between the territory, counties, metropolitan cities, and towns with fewer than 50,000 people. These funds will be used to cover costs incurred by December 31, 2024, and the funds allow Puerto Rico flexibility to respond to and address local needs. The Government is in the process of designing a disbursement program for these funds. But it will ultimately depend on further guidance from the U.S. Treasury on how it can use these funds.

The 2021 Fiscal Plan includes an estimate, shown in *Exhibit 14* below, of what portion of federal funds included in the aforementioned bills will be allocated to Puerto Rico, based on a variety of sources. The American Rescue Plan (ARP) Act requires the lead federal agencies for each program

to establish the terms and conditions that will provide additional guidance on how the funds will be allocated as well as eligible uses. The Oversight Board expects the Government to apply forthcoming guidance to maximize the impact of these federal funds on Island, and will work to identify current or incremental expenditures that could be covered by extraordinary federal funds. Given the terms and conditions and allocations of these funds are not finalized, the figures in the exhibit are subject to change.

EXHIBIT 14: ESTIMATED COVID-19-RELATED FEDERAL FUNDS ALLOCATED TO PUERTO RICO

Stimulus phase	Category	Estimated Puerto Rico Funding, $M
Phase 1&2 (03/06 and 03/18/20)	Phase 1: Preparedness & Response Supplemental Appropriations Act	31
	Phase 2: Families First Coronavirus Response Act	377
	Sub-Total, Phase 1 & 2	**408**
Phase 3 CARES Act (03/27/20)	Unemployment Insurance (includes Regular UI program and FPUC, PEUC, PUA, EB, and LWA programs)[1]	6,632
	Small Business Support programs (Paycheck Protection Program, Economic Injury Disaster Loan Program)	3,205
	State and local governments support (Coronavirus Relief Fund)	2,241
	Economic Impact Payments ($1,200 checks)	2,736
	Education funds (includes ESSER, GEER, and HEER funds)	760
	Disaster Relief Funds (allocated to states and territories by FEMA)	738
	Economic Stabilization Loans	73
	Nutrition and housing assistance	428
	Hospitals and healthcare funding	494
	Business and individual tax incentives	335
	Transit and infrastructure funding	226
	National Guard, Law Enforcement, and Justice funds	16
	Other Division B programs	144
	Sub-Total, CARES Act	**18,029**
Phase 4 CRRSA Act (12/27/20)	Unemployment Insurance (includes Regular UI program and FPUC, PEUC, PUA, EB programs)[1]	1,200
	Small Business Support programs (Paycheck Protection Program, Economic Injury Disaster Loan Program)	1,136
	Economic Impact Payments ($600 checks)	1,493
	Education funds (includes ESSER, GEER, and HEER funds)	1,924
	Nutrition and housing assistance	1,024
	Hospitals and healthcare funding	395
	Transit and infrastructure funding	96
	Other CRRSA Act minor programs	100
	Sub-Total, CRRSA Act	**7,368**
Phase 5 ARP Act (03/11/21)	Unemployment Insurance (includes Regular UI program and FPUC, PEUC, PUA, EB programs)[1]	2,812
	Economic Impact Payments ($1,400 checks)	3,609
	Education funds (includes ESSER and HEER funds)	3,714
	State and local governments support (includes funds for municipalities)	4,209
	Nutrition and housing assistance	1,319
	Hospitals and healthcare funding	1,352
	Public transit funding	184
	Other ARP Act minor programs	528
	Sub-Total, ARP Act	**17,727**
Total	**Total Federal Funding**	**43,532**

1 Additional payouts will come from Commonwealth spending, but are grouped together here as stimulus along with the related Unemployment Insurance items in the CARES act

The 2021 Fiscal Plan incorporates the combined effect of federal and local economic support in three ways. First, certain types of funding intended to prevent revenue and job loss are assumed to mitigate what otherwise would have been even higher unemployment and revenue loss had those funds not been provided. These funds are implicitly reflected in the 2021 Fiscal Plan because, without them, the income loss estimates would have been larger. The federal Paycheck Protection Program, which is designed to encourage businesses to keep employees on the payroll, is one example of this type of funding.

The second type of funds are those administered through economic support programs designed to provide income support directly from the Federal or local government. Examples include unemployment benefits, economic impact payments, and direct payments through increased benefits of regular Nutrition and Rental assistance programs.

The total amount of income replacement funds included in the 2021 Fiscal Plan is estimated to more than offset the forecasted income loss due to the COVID-19 pandemic. Based on recent research on stimulus funds spending,[23] the 2021 Fiscal Plan estimates that around 60% of income

23 Federal Reserve Bank of New York, "How Have Households Used Their Stimulus Payments and How Would They Spend the Next?," 2020

support funding will be spent over the FY2020-FY2023 period.[24] The remaining 40% of funds is projected to be saved and/or used to pay down debt, and then is spent over a 30-year period according to the long-term consumption smoothing concept.[25]

Finally, for *government expenditures and programs funded by federal and local economic support programs,* the 2021 Fiscal Plan uses the same approach as it does in estimating the pass-through of these expenditures to Puerto Rico as has been used for other types of economic stimulus funding such as disaster-recovery spending. Specific pass-through rates used on this funding are detailed below:

- A 23.5% pass-through rate is applied to spending on government programs and services. Examples include funding for law enforcement and the National Guard in Puerto Rico.
- A 5.5% pass-through rate is assumed for funding that is primarily directed to acquisition of goods that will predominantly be sourced off-Island. This funding impacts the Puerto Rican economy only through the on-Island transportation of such goods. Examples of this are testing and medical equipment, or educational supplies to facilitate distance learning.

Additionally, the 2021 Fiscal Plan accounts for the impact on growth that permanent changes in EITC and CTC programs are expected to deliver. The expanded EITC program is expected to represent an inflow of up to $600 million per year. This positive impact on the economy and growth, however has an additional fiscal cost of increased local funding required to fund the minimum local spending requirement to attain the maximum federal funds available under the ARP Act. The CTC program is expected to have a positive impact on GNP in the short-term due to temporary benefits under the ARP Act, and in the long-term due to the recurring additional funds that it will provide to beneficiaries.

4.3 Impact of fiscal or government efficiency measures

Government efficiency measures seek to streamline and transform the Government of Puerto Rico to deliver critical government services to the population and business sector more efficiently by optimizing revenue collection and reducing government-wide expenditures, while ensuring sustainability of those services over time given population trends. Such policy actions will generate a contractionary impact on the economy in the short term but are necessary to drive government efficiency and fiscal sustainability, as well as improve service delivery, in the long term. The net effect of these two forces is still significantly positive from a fiscal savings perspective through FY2051. The short-term macroeconomic impact of the measures is summarized in *Exhibit 15*.

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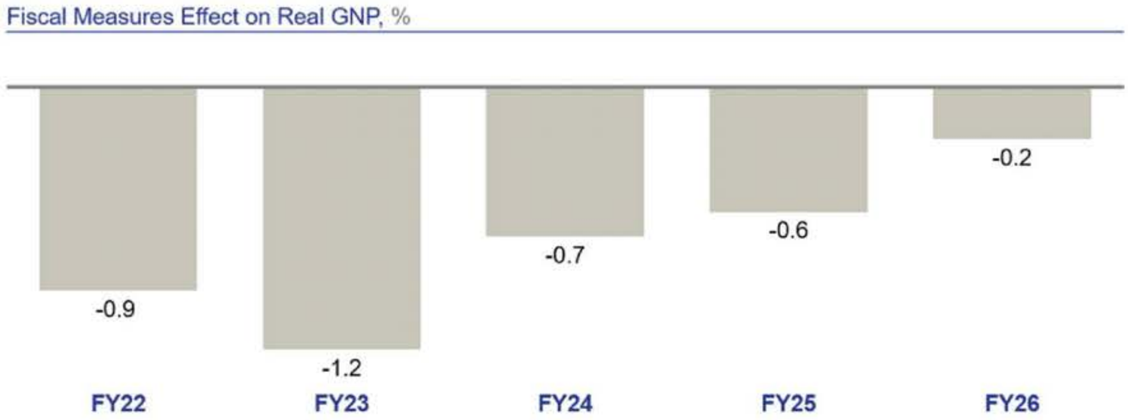
24 National Bureau of Economic Research, "Transfer Payments and the Macroeconomy: The effects of Social Security benefit changes," 2014

25 The duration of the period was calculated as the difference between the average life expectancy for people over 18 years of age in Puerto Rico and the average age of people over 18 years of age in Puerto Rico

EXHIBIT 15: MACROECONOMIC IMPACT OF FISCAL MEASURES



The 2021 Fiscal Plan assumes that the fiscal impact of disaster relief spending and fiscal measures is not permanent, but rather is unwound over the course of several years. The 2021 Fiscal Plan unwinds these over five years, as model-based and econometric studies find that the output effect of an exogenous fiscal shock typically disappears within five years, even if fiscal measures are permanent.[26]

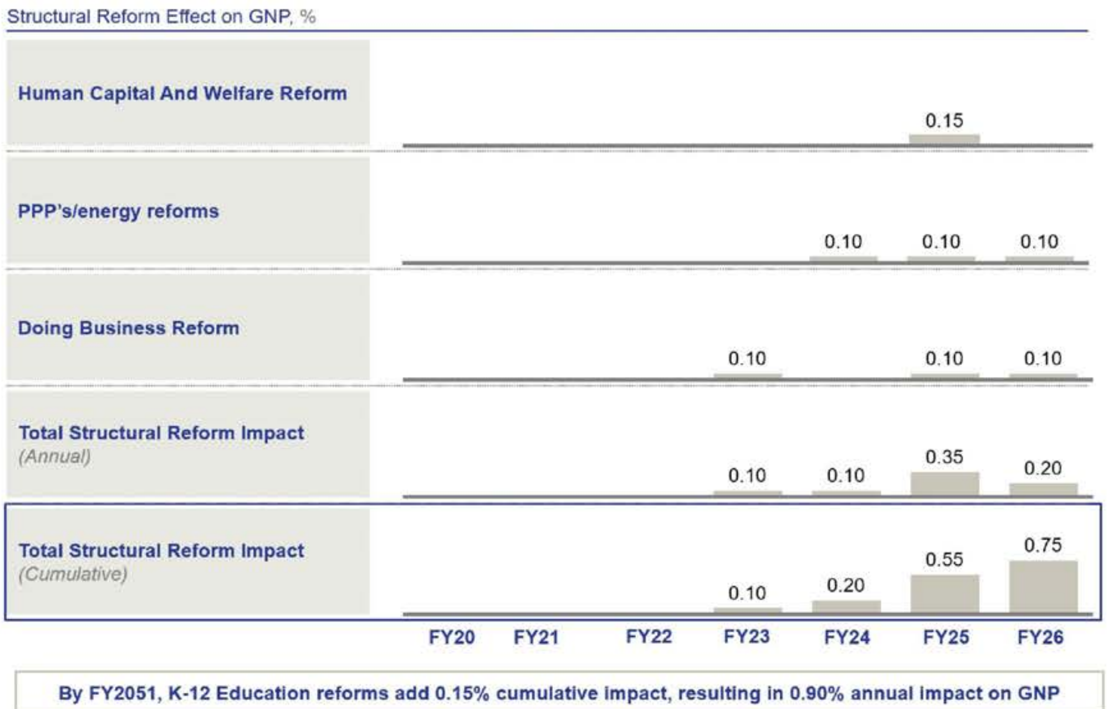
4.4 Impact of structural reforms

The estimated impact of **structural reforms** is based on work done by the International Monetary Fund on labor reforms implemented in Europe (e.g., Spain and Estonia) and South America (e.g., Peru and Colombia), among other jurisdictions; utilities reform in Latin America; broadly-accepted metrics for measuring improvement in the World Bank's Doing Business Rankings (as well as examples of growth experienced by countries that have implemented such reforms); and education reforms in Europe and elsewhere. Structural reform benchmarks, to the extent possible, come from nations or jurisdictions that face similar constraints to Puerto Rico (e.g., limited monetary policy options, high informal labor markets).

Energy and ease of doing business reforms are projected to increase GNP by 0.60% by FY2026, and human capital and welfare reform is expected to add another 0.15% in FY2025 (*Exhibit 16*). Finally, K-12 education reforms add an additional 0.01% annual impact beginning in FY2037, **resulting in total GNP increase from structural reforms of 0.75% by FY2026 and 0.90% by FY2051.** The anticipated timing of the incremental positive impact of these reforms has been delayed in this 2021 Fiscal Plan given the delay in the Government's implementation efforts.

26 Batini, N. Eyraud, L. and Weber, A. "A Simple Method to Compute Fiscal Multipliers", IMF Working Paper WP/14/93, as well as Mountford, A. and Uhlig, H. "What are the Effects of Fiscal Policy Shocks?" Journal of Applied Econometrics, 24: 960-992 (2009) and Jorda, O. and Taylor, A. "The Time for Austerity: Estimating the Average Treatment Effect of Fiscal Policy," Economic Journal, 126: 219-255, February 2015

EXHIBIT 16: MACROECONOMIC IMPACT OF STRUCTURAL REFORMS



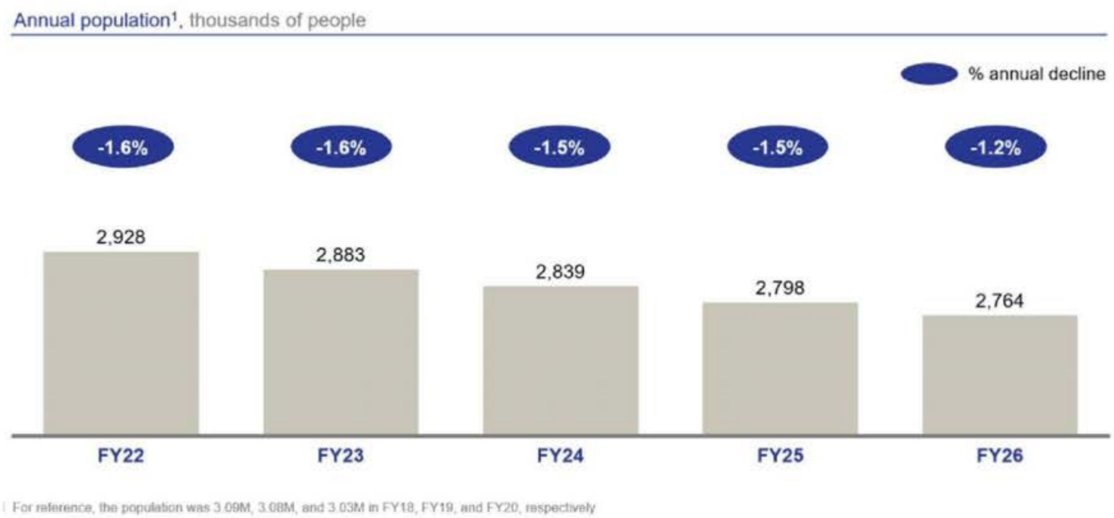
4.5 Population projections

Even before Hurricanes Maria and Irma hit the Island in 2017, Puerto Rico's population had been trending downward by 1-2% every year as residents have left to seek opportunities elsewhere and birth rates declined. In 2016, the U.S. Census Bureau's official forecast, projected a worsening population outlook due in large part to Puerto Rico's rapidly-aging population. This high average age range results from extremely low age-adjusted birth rates and outmigration of younger people. Indeed, in 2016, Puerto Rico began to experience negative natural population change (a higher number of deaths than births). This negative natural change has continued unabated into 2021.

Hurricanes Irma and Maria served to compound the problem, spurring an additional outflow of people just as natural population decline has set in, as many residents lost houses, jobs, and loved ones. While some of these people have returned, the population is still projected to decline over the course of the 2021 Fiscal Plan period and beyond. Further disasters, such as the series of earthquakes experienced in 2020, have not made a swift return to balanced migration any more likely. But while net migration is a larger driver of population change in the short term, this factor is volatile; in the long run, net migration is projected to return to more balanced trends. Meanwhile, natural population change is not guaranteed to rebalance at any point, and births are likely to continue declining, while deaths are projected to slowly rise in the mid-term. COVID-19 has suppressed air traffic between Puerto Rico and the mainland, and thus impacted migration, but this effect is expected to be transitory.

As outlined in *Exhibit 17* below, this 2021 Fiscal Plan projects that by FY2026, there will be almost 10% fewer people living on the Island than in FY2019, and that by FY2051, the drop will grow to 33%.

EXHIBIT 17: PROJECTED POPULATION CHANGE



Chapter 5. Fiscal Plan financial projections (FY2022-FY2026)

In the past several years, Puerto Rico has endured a tumultuous economic climate due to natural disasters and the COVID-19 pandemic. This has had a direct impact on economic growth and, ultimately, on Government revenues. The impact to Puerto Rico has been a real GNP decline in FY2020 followed by a rebound in FY2021 and FY2022 as the full impact of the federal economic support takes hold.

Before measures (i.e., in the "baseline forecast"), there is a pre-contractual debt service deficit starting in FY2023 in the 2021 Fiscal Plan.[27] This deficit gets worse over time, as federal disaster relief funding slows down, Supplemental Medicaid funding phases out, Act 154 and Non-Resident Withholding revenues decline, and healthcare expenditures rise.

The fiscal measures and structural reforms contained in the 2021 Fiscal Plan are the main drivers of a significant portion of the surplus in the 2021 Fiscal Plan. Fiscal measures will drive ~$10.0 billion in savings and extra revenue over FY2022-FY2026 and structural reforms will drive a cumulative 0.90% increase in growth by FY2051 (equal to ~$30.7 billion). However, even after fiscal measures and structural reforms, and before contractual debt service, there is an annual deficit reflected in the projections starting in FY2036. This is, in large part, due to insufficient implementation of structural reforms proposed in previous fiscal plans, including continued highly regulated and restrictive private sector labor market policies that prevent higher growth, a delay in rolling out the NAP work requirement to increase labor force participation rates, and a lack of progress implementing more meaningful ease of doing business reforms to improve the economy's competitiveness and attract greater levels of investment and job creation. *Exhibit 18* illustrates the projected deficit / surplus through FY2026.

Projections for FY2027 onwards are included in *Chapter 6*.

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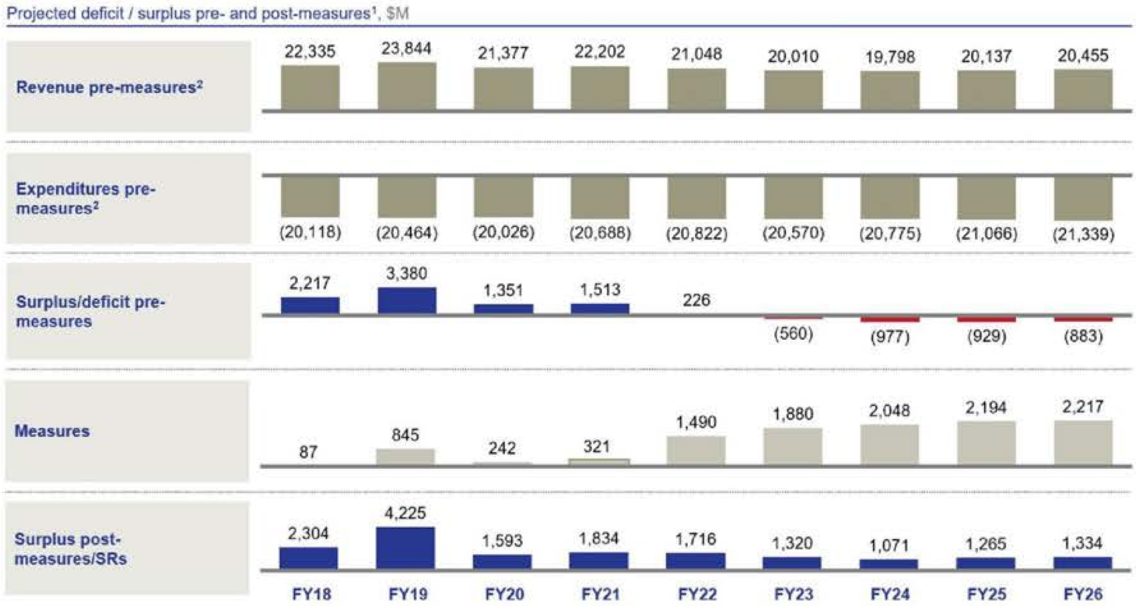
27 The baseline forecast also reflects the pledge of a portion of annual SUT revenues to COFINA creditors as per the terms of the COFINA Title III Plan of Adjustment

EXHIBIT 18: PROJECTED DEFICIT / SURPLUS PRE- AND POST-MEASURES



1 Values presented assume full and timely implementation of structural reforms and reflect GNP uplift due to these reforms
2 Revenues and expenditures excluding gross up adjustments; revenues do not include Earned Income Tax Credit

5.1 Baseline revenue forecast

Major revenue streams (*Exhibit 19*) include non-export sector General Fund revenues (including individual, corporate, and sales and use taxes) and export sector revenues (including Act 154 excise taxes paid by multinationals operating on the Island, and Non-Resident Withholdings), as well as federal funding. The 2021 Fiscal Plan also includes certain Commonwealth revenues that prior to PROMESA the Commonwealth appropriated to certain instrumentalities pursuant to statutes enacted by prior legislatures; the inclusion of these revenues in the 2021 Fiscal Plan is based on the Oversight Board's legal conclusions that (i) such monies are property of the Commonwealth, (ii) each pre-PROMESA statute appropriating or transferring such monies to instrumentalities of the Commonwealth is preempted by PROMESA, (iii) such statutes were enacted by prior legislatures that cannot bind the current legislature, and (iv) in any event, absent PROMESA under the Puerto Rico Constitution, such monies would not be transferred to the instrumentalities while General Obligation debt is not being paid according to its terms.

There is expected to be significant near-term uncertainty in the level of revenue collections, as the post-COVID recovery is constantly evolving. Since the 2020 Fiscal plan, there have been multiple rounds of additional federal economic support, which has contributed to faster than expected economic recovery at the national and local level. As a result, tax collections have been generally higher than forecasted in the 2020 Fiscal Plan. Relative to the 2020 Fiscal Plan, General Fund revenues are expected to be ~14% higher in FY2021 and ~9% higher in FY2022.

EXHIBIT 19: MAJOR REVENUE STREAMS POST MEASURES

Key general fund revenue drivers, post-measures, $M

	FY22	FY23	FY24	FY25	FY26
Personal income tax[1]	2,105	2,115	2,116	2,173	2,219
Corporate income tax	2,054	2,017	1,997	2,069	2,110
Sales and use tax[2]	2,239	2,219	2,214	2,253	2,292
Act 154	1,631	1,447	1,199	1,199	1,199
Non-resident withholdings	349	349	350	354	358
Other general fund revenues[3]	1,829	1,730	1,677	1,699	1,726
FAM portion of SUT	130	130	130	133	136
Incremental excise taxes on off-shore rum	175	141	143	144	146
Petroleum, gasoline, diesel taxes	562	637	636	637	638
Vehicle license fees	134	132	131	132	133
CRIM property tax inflows	140	146	148	150	153
Miscellaneous other	233	215	215	217	219
Total	11,582	11,278	10,957	11,160	11,330

1 Includes expense related to EITC
2 Sales and use tax (SUT) reflects collections after payout of the COFINA settlement
3 'Other' general fund revenues include cigarette, rum, motor vehicles, alcoholic beverages, and other GF taxes; exclude adjustments for revenue gross up

Additional details on the 2021 fiscal plan revenue streams are provided below, with details on the financial projections included in the Appendix. The following sections describe the approach to estimating revenues for key revenue streams.

5.1.1 Non-export sector General Fund revenue projections

Individual income taxes: Individual income taxes are highly concentrated, with 78.2% of revenues coming from the 8.7% of tax returns reporting income above $60,000 in FY2018.[28] The 2021 Fiscal Plan incorporates the expected incremental individual income tax collections associated with disaster relief spending, as well as the performance of individual income tax collections that have been more resilient in FY2021 than forecast in the 2020 Fiscal Plan. The 2021 Fiscal Plan projects that disaster relief spending will continue to contribute to the income tax base, either through mainland workers temporarily working in Puerto Rico or from Puerto Rican residents entering the formal economy as a result of disaster relief projects.

Corporate income taxes: There is also concentration in tax receipts among the largest corporations operating in Puerto Rico (e.g., ~29% of corporate income taxes are paid by 20 corporate taxpayers).[29] Historical aggregated data from Hacienda show that in the aftermath of the 2017 hurricanes, there was an influx of corporate activity spurred by reconstruction funding and mainland-based firms entering the Island's economy. This had led to higher corporate income taxes relative to GNP in FY2018 and FY2019, and this trend was continuing in FY2020 prior to the onset of COVID-19. The 2021 Fiscal Plan incorporates the contribution of disaster relief spending to the corporate tax base into future years. Further, the 2021 Fiscal Plan reflects certain adjustments to corporate income tax revenues attributable to one-time M&A activity, which

28 Hacienda historical reports as of April 2018
29 Ibid.

resulted in a non-recurring $488 million of revenues in FY2020 and ~$39 million in reduced corporate income taxes starting in FY2021, as projected by Hacienda.

Sales and use taxes (SUT): As with corporate and personal income taxes, SUT outperformed relative to GNP in FY2018 and FY2019, likely boosted by the increased economic activity resulting from the post-disaster reconstruction process (including through the replacement of lost inventory) and higher SUT compliance by larger firms less impacted by natural disasters. The 2021 Fiscal Plan incorporates incremental tax collections as disaster relief continues in future years. A portion of SUT collections will also be used to fund COFINA's obligations under its Plan of Adjustment going forward. This portion reaches ~$1 billion annually starting in FY2041.

Partnership income taxes: Act 60-2019 extended an alternative tax election for taxpayers to pay income taxes at the Partnership level at preferential tax rates. This change in tax administration resulted in a new category of revenue collections of ~$205 million[30] for FY2021 (as of February 2021). These payments largely reflect payments that otherwise would have been made by the partners in these entities and therefore would have been reported as personal or corporate income tax. A portion of the incremental collections have been considered non-recurring given the concentration of the payments in a small number of taxpayers and sectors. The 2021 Fiscal Plan forecasts ~$100 million of the increase in collections to be recurring.

Other General Fund revenue (including Motor Vehicles, Alcoholic Beverages, and Cigarettes): Motor vehicle revenue tax receipts surged in FY2018 and this trend continued into FY2021, as residents continued to accelerate motor vehicles purchases in the aftermath of the 2017 hurricanes and during the COVID-19 pandemic as federal stimulus payments reached the Island. The 2021 Fiscal Plan forecasts that elevated purchasing of motor vehicles will continue into FY2022, but purchases then return to historical trends over the following years. In addition, since FY2019 there has been a persistent increase in "other excise tax" collections, as these taxes were migrated to the new Internal Revenue Unified System (SURI by its Spanish acronym) platform. Hacienda has reported that it is challenging within the new platform to properly classify a component of these revenues according to their appropriate excise tax classification (e.g., motor vehicles, alcoholic beverages). Accordingly, the agency has created a suspense account to recognize these collections until the corresponding return is received and reconciled. The Oversight Board has requested corrective action be taken to accurately and in a timely manner recognize revenues in their appropriate revenue accounts to reduce the accumulation of unclassified excise taxes, and better isolate how much of the elevated collections come from re-classified taxes versus improved compliance. The 2021 Fiscal Plan includes an updated forecast of other General Fund tax revenues to reflect the expected continued elevated collections relative to prior year forecasts. The Oversight Board will continue to work with Hacienda to decompose this category of revenue and improve the granularity of future year forecasts.

Export sector revenue projections: Act 154 and Non-Resident Withholding (NRW) tax revenues are concentrated in a small number of multinational corporations. From FY2017 to FY2024, the 2021 Fiscal Plan estimates that Act 154 and NRW revenues will erode due to U.S. federal tax reform (reducing Puerto Rico's attractiveness as a low tax jurisdiction for multinationals), global supply chain diversification, and patent expirations. During FY2021, the Government submitted comments for the U.S. Treasury's consideration in response to the IRS notice of proposed rulemaking REG-101657-20 publication. In addition, the U.S. Treasury has publicly proposed reforms to the global corporate tax regime that could impact Puerto Rico, if enacted. The Oversight Board will closely monitor developments in the event they impact the 2021 Fiscal Plan.

30 Does not include deferred taxes from FY2020 collected during FY2021

DRA Ex. 236

5.1.2 Medicaid funding

On a steady-state basis (i.e., in the absence of supplemental federal legislation), Medicaid costs are funded primarily by the Commonwealth, as there is a cap on available federal funding. Typical annual federal funding streams for the Commonwealth are the following, and are projected based on current law and statutory growth rates:

- **Standard annual federal Medicaid funding.** Although Puerto Rico has a 55% federal medical assistance percentage (FMAP), the amount of annual federal funding received under Section 1108 is capped each year. For FY2022, this funding stream is expected to be capped at ~$403 million, and though the cap grows each year according to the Medical Consumer Price Index for All Urban Consumers (CPI-U), it does not keep pace with healthcare expenditure growth.[31] Each year, ~$100 million of these funds are not available to cover premium expenses, but rather are transferred to the Department of Health to cover disbursements to Federally Qualified Health Centers ("Centros 330" or "FQHC") and Medicaid Program operations.

- **Increases in available Medicaid funding from federal legislation:** Since 2011, Puerto Rico has received temporary relief from rising healthcare costs through increased levels of federal reimbursement made available through the passage of the Affordable Care Act and the Bipartisan Budget Act of 2018. In December 2019, the Further Consolidated Appropriations Act was passed, which provides supplemental federal funding (up to $5.7 billion in total) to Puerto Rico's Medicaid program through September 30, 2021 (i.e., the first quarter of FY2022). In addition, the law raises the FMAP—the portion of Medicaid expenditures that federal funds can cover—from the standard level of 55% to 76% for most populations. Finally, in response to the COVID-19 pandemic, the Families First Coronavirus Response Act was passed in March 2020, further increasing both the available federal funds (adding an additional $183 million) and the FMAP (increased by an additional 6.2% for most populations). The available supplemental federal funds and higher FMAP will both return to standard levels in October 2021 (Q1 FY2022) in the absence of new federal legislation. Accordingly, the Commonwealth will hit a "Medicaid fiscal cliff," whereby it will be responsible for multi-billion-dollar annual healthcare expenditures that had previously been covered by federal funding since 2011. The 2021 Fiscal Plan does not assume future changes in federal legislation for this funding. The 2021 Fiscal Plan ensures that the Commonwealth is fiscally responsible under current law, and factors in the cost of Medicaid going forward in the absence of incremental legislation. To provide healthcare for a substantial part of the population, the Commonwealth must be able to pay and manage these critical costs, which grow faster than inflation, regardless of the future federal legislative environment. In the event that supplemental federal funds become available during any future fiscal year, and depending on the conditions imposed on the federal funds granted, the projected General Fund appropriation for the Puerto Rico Health Insurance Administration (ASES, by its Spanish acronym) would be revised downward.

- **Children's Health Insurance Program (CHIP) funding.** CHIP funding is not subject to a federal funding cap. Without additional legislation, the CHIP matching rate, also known as the Enhanced FMAP or eFMAP, for Puerto Rico is statutorily set at a minimum of 68.5% under Title XXI of the Social Security Act. Post passage of the Affordable Care Act, starting in FFY16, the eFMAP for Puerto Rico was raised to 91.5% through September 30, 2019. Subsequently, the eFMAP increased to 99% through a combination of legislative activity including the HEALTHY KIDS Act and Families First Act. The former expired in September 2020, dropping the eFMAP to 87.5%. The latter will remain in effect through the end of the public health emergency, which is currently extended through the close of calendar year 2021.

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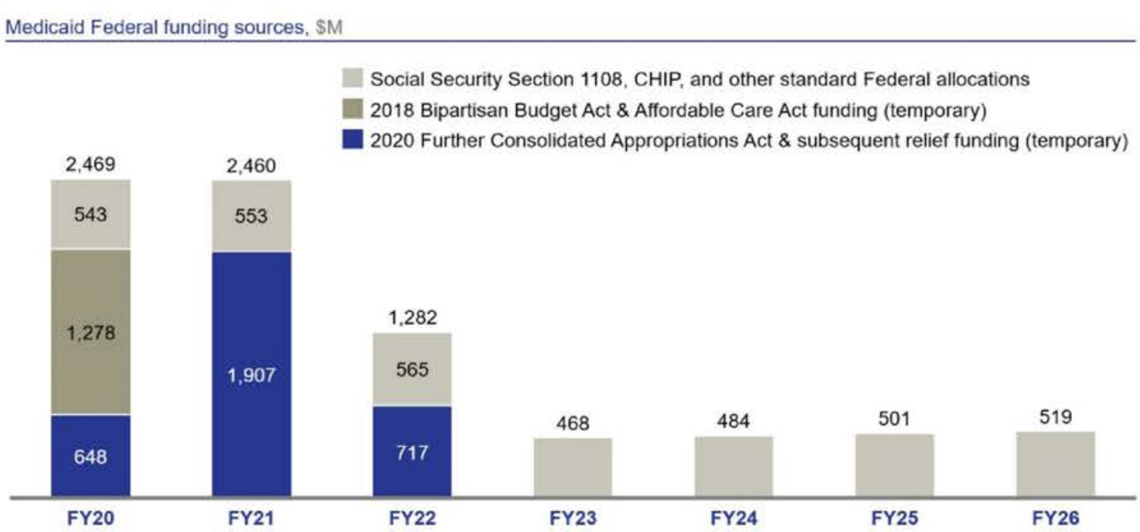
[31] According to §1108(g) of the Social Security Act., from 2011 to 2016, the cap grows by the medical component of CPI-U as reported by BLS each year. From FY2011-FY2016, this growth averaged 2.9%. This inflation rate differs from the healthcare inflation index for Medicaid and Medicare used elsewhere in the 2021 Fiscal Plan (4.5% to 5.5% from FY2020-FY2022, decreasing to 4.75% in FY2049). Instead, the medical component of CPI-U includes other factors that lower the inflation rate by approximately 3-5 percentage-points, meaning the increase in the federal funding cap will not keep up with actual increases in expenditures

The Families First Act adds approximately 4.3% to the eFMAP. When the emergency health period is ended, the federal cost share is projected to decrease to the 68.5%.[32]

- **Special Revenue Fund revenues from municipalities:** Additional revenue for the Medicaid program comes from municipal intra-governmental transfers. See *Section 5.1.4* below for more information.
- **Special Revenue Funds revenues from prescription drug rebate:** Under the Centers for Medicare and Medicaid Services (CMS) Rule 84 FR 64783, U.S. Territories will be required to join the federal Medicaid Drug Rebate Program (MDRP) on April 1, 2022,[33] unless they apply for and receive a waiver. Currently, Puerto Rico operates its own drug rebate program whereby the Commonwealth negotiates or utilizes pre-negotiated agreements with drug manufacturers to return a portion of cost for prescription drugs (expected to be $264 million in FY2022). These funds enter the Commonwealth budget as Special Revenue Funds and are applied directly against the costs of Medicaid premiums. However, Puerto Rico has expressed its intention to join the MDRP program in the next fiscal year. Puerto Rico's potential entry into the MDRP is expected to yield higher rebate rates from drug manufacturers compared to those the Commonwealth currently has in place. Partly to enable entry into the federal program, the Government has also indicated its intention to update its accounting systems and the methodology by which it reports prescription drug utilization to the Centers for Medicare and Medicaid Services (CMS). In doing so, Puerto Rico will also begin sharing a portion of the rebate revenue with the Federal Government to the extent it reduces the costs eligible for federal matching. The Board is working with the Government to estimate the net financial impact and timing of the shift to the MDRP, including by seeking guidance from CMS on what revenues, if any, must be shared with the Federal Government.

Exhibit 20 outlines expected Medicaid federal fund receipts. After the first quarter of FY2022 (ending September 30, 2021), supplemental federal funding is projected to phase out, in accordance with currently enacted legislation. This "funding cliff" further exacerbates the imperative and urgent need to implement cost-saving measures to reduce long-term Medicaid costs. Medicaid expenditures are discussed in detail in *Chapter 16*.

EXHIBIT 20: BASELINE FEDERAL FUNDS RECEIPT PROJECTIONS



32 MACPAC: "Medicaid and CHIP in the Territories" (April 2020)

33 "Medicaid Program; Covered Outpatient Drug; Further Delay of Inclusion of Territories in Definitions of States and United States." Federal Register, 11 November 2019. Accessed 16 April 2021

DRA Ex. 236

5.1.3 Other federal funding

In addition to Medicaid funding, Puerto Rico receives other federal funds on a regular basis. These are not to be confused with disaster relief funds, which are directly tied to Hurricane Maria and earthquake reconstruction activity, or with COVID-19 response and relief funds, which are meant to cover incremental government spending to respond to the global pandemic. These funds cover both social benefits and operational expenditures. In the 2021 Fiscal Plan, these funds have been modeled based on what types of costs they cover (e.g., benefits or operations) as well as statutory formulas that define the size of Puerto Rico's allotment. For example, while Temporary Assistance for Needy Families (TANF) funds are typically pass-through (e.g., none of these funds go to operational costs), some Title I education funds are projected to be used for operational purposes (e.g., teachers' salaries, school supplies for programs for students with special needs, etc.). For the former, federal fund inflows and outflows mirror each other (as benefit needs decline, so do funds). For the latter, though inflows may decline, it does not necessarily mean expenditures decline as well – as expenditures are based on operations, not on benefits formulas, and the Commonwealth may have to cover operational expenditures via the General Fund should they outpace reduced federal funding. Meanwhile, while Head Start funds are allocated from the Federal Government based on the number of children living in poverty, NAP funds are provided through a block grant that is capped. The former, therefore, should change by population, while the latter should only grow with inflation, regardless of population changes.

5.1.4 Special Revenue Funds

Commonwealth agency Special Revenue Fund (SRF) revenues: The Commonwealth collects a significant portion of its revenues through Special Revenue Funds, which are funded from, among other sources, tax revenues transferred by statutes, fees and charges for services by agencies, and dividends from public corporations, and financing proceeds. Government tracking and reporting of these SRF revenues, associated expenses, and resulting surpluses or deficits has historically been incomplete and inconsistent. The baseline level of SRF revenues of Commonwealth agencies (excluding Independently Forecasted Component Units or IFCUs) has been updated in this 2021 Fiscal Plan by agency. The 2021 Fiscal Plan does not further detail SRF by type (special state funds, own revenues and other revenues), as Commonwealth agencies (excluding IFCUs) do not report this level of detail consistently. Future budget and Fiscal Plan processes will aim to further clarify Special Revenue Funds and apply controls to ensure transparency and accountability for these revenues. SRF revenues from fees and collections are also expected to be negatively affected by the COVID-19 pandemic, as agencies face decreased demand for services as a result of the lockdown. In order to achieve greater transparency and controls over SRF, the Government must identify all SRF sources at a granular level, and produce a revenues and expenditures report on a monthly basis, including a profit and loss statement for each Special Revenue Fund.

Independently Forecasted Component Unit (IFCU) revenues: The Commonwealth contains twelve Independently Forecasted Component Units, which range from public corporations (e.g., the State Insurance Fund Corporation) to public hospitals (e.g., the Cardio Center). These entities are mostly funded by Special Revenue Funds and may also receive General Fund appropriations. Through the annual budget process and tracking of actual receipts and expenditures, the Oversight Board has been able to gain more insight into the specific revenue streams for these entities to further refine the IFCU revenue projections. While most IFCU revenues are projected using GNP, given the unique nature of each IFCU, certain revenue streams are grown by other factors, such as inflation, population, or as governed by legislation.

Municipal contributions to PayGo and the Puerto Rico Health Insurance Administration (ASES by its Spanish Acronym): The 2021 Fiscal Plan includes receipts from municipalities to cover retirement and healthcare expenses incurred by the Commonwealth on their behalf. Since the passage of Act 72-1993, ASES has received funding from municipalities for the administration and delivery of the Government Health Plan on their behalf. Similarly,

since the passage of Act 106-2017, municipalities that participate in ERS are financially responsible for PayGo expenditures covered by the Commonwealth. The passage of Act 29-2019 disrupted this model and required the Government to fund municipalities' PayGo and Medicaid costs from the General Fund without receiving reimbursement from the municipalities. However, following legal proceedings initiated by the Oversight Board challenging the validity of Act 29-2019 under PROMESA, the Title III court ruled that Act 29-2019 violated PROMESA and nullified the law, thereby reinstating the municipalities' obligation to cover PayGo and healthcare payments for their employees. As a result of this ruling, the Commonwealth is entitled to seek reimbursement for prior payments made under Act 29-2019 and is empowered to act if these contributions are not received (e.g., to withhold payments for utilities, appropriations). The effective date of the court's ruling was delayed to May 7, 2020 to allow for the parties to discuss potential solutions to the financial challenges faced by municipalities, particularly in light of the COVID-19 pandemic. Accordingly, the 2021 Fiscal Plan assumes that municipalities fund their respective contributions for PayGo and healthcare expenditures going forward. In calculating municipalities' healthcare expenditures, however, the 2021 Fiscal Plan does take into account the incremental federal funding support in FY2021 and FY2022 made available through the 2020 Further Consolidated Appropriations Act. Given that this funding stream expires in FY2022, the 2021 Fiscal Plan assumes that contributions from municipalities thereafter will return to previous levels, but the Oversight Board will utilize the same approach in future years if additional federal funding is again provided.

Public Corporation PayGo receipts: The 2021 Fiscal Plan includes receipts from public corporations (e.g., PRASA) that participate in the Employee Retirement System (ERS) to cover PayGo expenditures covered by the Commonwealth. The Commonwealth shall be reimbursed for these payments and will act if these contributions are not received (e.g., will withhold payments for utilities).

FAM: The Municipal Administration Fund (FAM) collects 0.5% of the SUT which is distributed into three funds: (1) 0.2% to the Municipal Development Fund; (2) 0.2% to the Municipal Redemption Fund; and (3) 0.1% to the Municipal Improvement Fund (referred to as the FMM). Pursuant to Section 4050.09 of Act 1-2011, the FMM are to be distributed through annual legislation and appropriated for select capital works and improvement projects for the municipalities (e.g., public housing, schools). The legislature passes resolutions each year to allocate the FMM. These resolutions must be consistent with the 2021 Fiscal Plan and the applicable special revenue funds included in the Certified Budget.

5.1.5 Gross-up for tax credits

Gross-up of revenues to reflect potential revenues without payment of tax incentives: In addition to offering preferential tax rates, tax exemptions, tax abatements, and cash grants, the Government of Puerto Rico provides hundreds of millions of dollars in tax credits to corporations and individuals each year. Some of these tax credits function as entitlement programs: any business that meets the requirements set forth in law is entitled to the benefit. Other tax credits give government officials considerable discretion on which projects will receive incentives. Many of these tax credits are intended to pursue certain policy goals such as stimulating employment, stimulating economic activity and economic development, encouraging investment, and protecting local industries. Unlike traditional expenditures, however, tax credits are not incurred in a transparent fashion, and, with only a few exceptions, are currently uncapped by any aggregate amount of benefits conveyed. The issuance of tax credits also tends to be done in an ad hoc manner, with unclear economic justification for the costs incurred and without monitoring of the goals described above (i.e., how many jobs in any particular year were created). This leads to an unpredictable, and potentially costly, foregone revenue stream each year.

Uncapped and unpredictable issuance of tax credits can have a materially negative fiscal impact. Several states have faced challenges with unexpected levels of expense from tax

expenditures, such as Michigan (the Michigan Economic Growth Authority tax credits), Louisiana (tax credit for horizontal natural gas drilling), and New York ("brownfields" tax credits). The examples from these states are not uncommon and they reinforce the uncertainty and risk associated with the establishment of tax credits.

Policy makers in Puerto Rico must understand both the budget implications of current and proposed tax expenditures and should manage the size of tax incentives by setting limits on their annual cost and eliminating tax credits with negative returns. The issuance of reliable cost estimates, including a detailed analysis of the budget implications from each tax incentive and annual cost controls will help Puerto Rico avoid unexpected negative outcomes. Otherwise, the Government will remain powerless to manage the cost of these incentives and keep the incentives from growing uncontrollably.

Recognizing the importance of this question to the fiscal sustainability of Puerto Rico, the 2021 Fiscal Plan includes a forecast of gross revenues inclusive of the value of tax credits to show the foregone revenue associated with these credits. The 2021 Fiscal Plan includes a forecast of gross revenues based on the historical level of certain tax credits claimed on income tax filings for individual filers, regular corporation filers, and incentive tax filers, as provided by Hacienda. As shown in the period of the report *Exhibit 21*, over nine tax years (2010-2018), tax credits claimed across all tax filers averaged $261 million annually. The 2021 Fiscal Plan recommends all reporting going forward include monthly and quarterly reports as to the gross revenues, tax credits claimed, and the net revenues received for the period of the report.

EXHIBIT 21: TAX CREDITS BY YEAR

Projection, $M	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Regular Corporations	94	48	89	89	140	66	75	82	18
Incentive Corporations	135	147	133	158	116	78	70	56	66
Individuals	59	37	90	69	65	66	61	89	157
Total Tax Credits Claimed	**288**	**232**	**312**	**316**	**321**	**210**	**206**	**227**	**241**
9-Year Average									**261**

SOURCE: Hacienda

The Government must also adopt a transparent limit to the amount of tax credits issued and claimed at an amount below $261 million by, for example, capping the notional amount, restricting the number of companies and individuals that can claim credits annually, including sunset provisions, or inserting time bound clauses upon which each tax credit will expire. This is similar to the approach that other states have taken to limit the use or issuance of tax expenditures, including Arizona, California, Florida, Illinois, Massachusetts, Minnesota, New York, Ohio, and Pennsylvania. This limit is separate and incremental to the cash grants that corporations and individuals also receive, which will be captured in Certified Budgets going forward. Future Fiscal Plans should also be expanded to include limitations on foregone revenues due to preferential tax rates and exemptions, including municipal exemptions.

These forecasts should be maintained and updated by leveraging the work that Hacienda has undertaken to produce and maintain a more comprehensive measurement of tax expenditures over time through the annual Tax Expenditures Report. As discussed in more detail in *Section 17.3.1*, the publication of the initial Tax Expenditures Report in September 2019 provided, for the first time, better visibility into the full scope of tax expenditures being offered, together with a description and approximate cost of each expenditure.

For tax expenditures reporting to maintain relevance and maximize its impact on the policy making process, regular reviews of each tax incentive should be completed to assess whether each incentive is meeting its policy objective (and an assessment of benefits along with costs). This was missing from the inaugural report and detracts from the ability of the report to provide proper context from which to inform budgetary decision-making.

The estimates in the tax expenditures report should also be systematically incorporated into the annual fiscal plan and budget review process. This means they need to be considered in conjunction with consideration of direct spending proposals at the executive review and legislative levels and the agencies responsible for programs.

To achieve the objectives above, the tax expenditure report must be produced annually on a timely and efficient basis. In fact, the publication of the first tax expenditures report, in September 2019, stated the second annual report would be published in March 2020, yet it has not been published. Rationalizing the amount of tax expenditures offered by the Government is smart and prudent fiscal management. This can only be done in a comprehensive way through the production of the annual tax expenditure report on a timely basis.

The Government has also taken initial steps to provide transparency around, and control these expenditures through its proposed reforms to the Incentives Code. By targeting a limit on the amount of tax expenditures that can be spent each year, the Government would retain control over the cost and enable public debate about the value of this type of spending in light of the various needs on the Island.

5.1.6 Gross-up for COFIM receipts

The Municipal Finance Corporation (COFIM, by its Spanish acronym) is the public corporation that collects the 1% Municipal SUT established by law for certain municipalities. The 2021 Fiscal Plan includes projections of this 1% revenue stream, along with exactly offsetting expenses. COFIM is not an entity that receives appropriations from the General Fund, but rather relies solely on municipal SUT.

5.2 Baseline expenditure forecast

The trend of **"baseline expenditures"** (or, the forecast of projected expenditures assuming no measures and structural reforms), is summarized in *Exhibit 22*.

EXHIBIT 22: MAJOR OPERATING EXPENDITURE CATEGORIES PRE-MEASURES

Key baseline expenditure drivers (pre-measures), $M

	FY22	FY23	FY24	FY25	FY26
Payroll (General Fund)	3,134	3,179	3,228	3,279	3,330
Operating expenditures (General Fund)	1,964	1,893	1,933	1,965	1,990
CW appropriations	1,193	1,179	1,125	1,142	1,128
Commonwealth Medicaid expenditures	1,968	2,654	2,754	2,856	2,974
Pension expenditures	2,259	2,237	2,233	2,224	2,215
IFCU & CW SRF Expenditures	2,279	2,297	2,320	2,357	2,400
Federally funded expenditures	5,706	4,935	5,000	5,072	5,150
Other[1]	446	339	300	259	210
Total CW funded operating expenditures[2]	**18,949**	**18,712**	**18,894**	**19,154**	**19,397**

1 Includes Disaster Recovery Cost Match, Restructuring / Title III costs, Social Programs CW funded, Reserve for emergency fund and Budget incentives
2 Does not include capital expenditures, enterprise funds, disbursements to entities outside the 2021 Fiscal Plan, and other non-recurring expenditures

5.2.1 General fund payroll and non-personnel operating expenditures

Payroll expenditures: Despite progress made through the FY2021 budget process, consistent granular payroll data continues to be a challenge for the Government. FY2018 payroll numbers reflect actual expenditures where available and the Certified Budget in cases where actual data was not available (adjusted to reflect reapportionments among agencies). FY2019 was assumed to be equal to FY2018 given the Fiscal Plan Compliance Act, which enacted a payroll freeze except for certain agency-specific adjustments. Beginning in FY2020, base payroll has been assumed to grow by Puerto Rico inflation. As part of the FY2020 and FY2021 budget certification processes, key agencies were analyzed to develop detailed payroll estimates based on agency rosters, actual payroll run rates and anticipated changes to headcount and salaries. Any reduction to baseline payroll expenditure projections from attrition, absenteeism, or workforce reductions is captured through fiscal measures.

Non-personnel operating expenditures: Non-personnel operating expenditures in FY2019 were also assumed to be equal to FY2018 budgeted levels. Thereafter, non-personnel operating expenditures are assumed to grow by Puerto Rico inflation, with select adjustments as necessary. For example, the 2021 Fiscal Plan includes a 10% reduction to FY2022 Special Fund for Economic Development (FEDE, by its Spanish acronym) and Economic Incentive Funds (FIE), Cruise Industry Incentives, Renewable Energy, Export Development, and Corporation for the Development of the Arts, Science and Film Industry of Puerto Rico (CINE) expenditures, an amount which is then taken out of all future years. (In FY2022, these select expenditures reductions are $10 million total.)

5.2.2 Special Revenue Funds

Commonwealth agency Special Revenue Fund (SRF) operational expenditures: The Commonwealth funds a significant portion of its expenses with Special Revenue Funds and previously did not report on these expenses transparently in a consistent manner. Given that SRF

DRA Ex. 236

revenues and expenditures are not part of the General Fund for budgeting purposes, they are not included in the General Fund budget resolutions approved by the Legislature. However, the Oversight Board has certified SRF expenditures starting with the FY2019 budget process, with the objective of applying controls and reporting requirements to ensure transparency and accountability for these revenues and expenditures. With data made available by the Commonwealth, the baseline level of SRF expenses of Commonwealth agencies (excluding IFCUs) has been updated and allocated across agencies (by payroll and non-payroll expenditures). Given the mandate of the Office of the CFO to place controls on SRF expenditures, baseline SRF expenses are forecasted to be equal to the estimated revenues in each year before fiscal measures.

Independently Forecasted Component Unit (IFCU) operational expenditures: Most IFCU payroll and non-payroll expenses grow by inflation, with exceptions for certain expense categories (e.g., healthcare costs grow with medical inflation, variable costs that grow in line with revenues).

The baseline expenditures include **municipality and public corporation PayGo, COFIM, and FAM expenditures**, including all the conditions outlined in *Section 5.1.4*.

5.2.3 Other federal funding

Most federal funds received by the Commonwealth are passed through to residents directly in the form of social benefits (e.g., TANF, WIC), but federal funds are also used to cover operating expenditures in many agencies. Expenditures related to pass-through federal funds are set equal to the associated revenue stream. Baseline expenditures related to operating expenditures are set based on the FY2018 federal funds budget reported by the Government (updated in select cases for new information received FY2019-2021) and grow with inflation (and in some cases population). In the case of Community School Program (largely Title I funding), revenues will grow with growth in total federal funding - presumed to track U.S. inflation - but decline with decreasing enrollment, which is the most salient determinant of Puerto Rico's annual allocation. At the same time, the 2021 Fiscal Plan assumes fixed costs associated with providing these services may not decline at the same rate given historical Commonwealth behavior of maintaining infrastructure such as schools and program staff despite population decline. Therefore, the 2021 Fiscal Plan assumes that—without fiscal measures—the General Fund will cover any cost increases that continue despite declining Title I federal support.

5.2.4 Medicaid expenditures

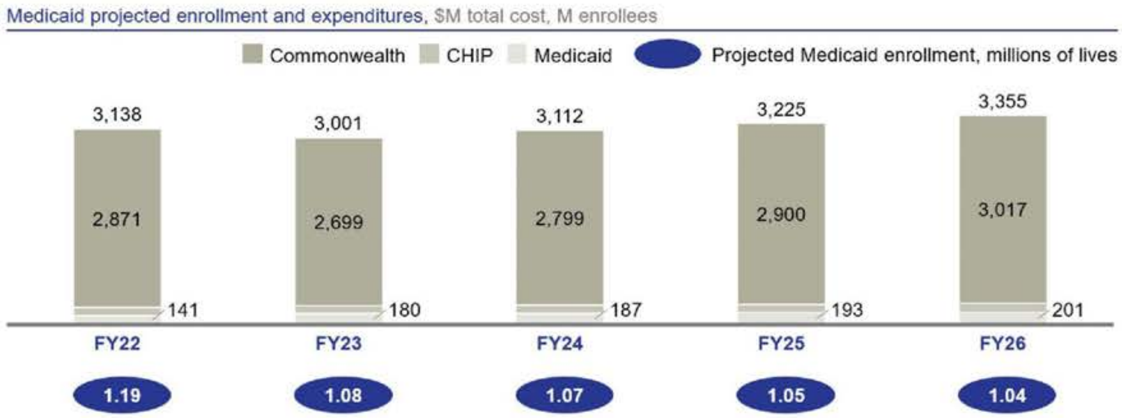
Medicaid costs are projected to reach nearly $3.5 billion annually by FY2026. These costs are primarily driven by premiums, calculated by multiplying the weighted-average cost per member per month (PMPM) by the estimated number of people enrolled in the Medicaid (federal and Commonwealth-qualified), CHIP, and Platino dual-eligible programs. Projections also include other direct health expenditures (e.g., Hepatitis C, HIV, and pulmonary programs) that do not flow through managed care. These costs are exclusive of non-medical administrative costs to ASES and the Department of Health.

PMPM costs are projected to grow at 8.9% in FY2021 as a result of increased healthcare utilization following the pandemic. Relatedly, actual PMPM growth is now projected to have been just 1.6% from FY2019 to FY2020. As healthcare utilization resumes to normal levels, growth rates are expected to return to previous projections (of 5.15%) by FY2025. In the long term, costs increase according to an age-mix-adjusted PMPM growth rate (of 4.75% by FY2051, for example), which reflects a shift to a younger enrollment population.

Enrollment rates are primarily tied to overall population decline on the Island. However, the first half of FY2022 is projected to see an enrollment increase, independent of overall Island population changes. In the first quarter, this change is primarily related to the decision to raise the Puerto Rico Poverty Line (PRPL) through September 30, 2021. Since the PRPL is a partial

determinant of Medicaid eligibility, this increase allowed previously unenrolled residents to enroll during the COVID-19 pandemic. This COVID-19-related increase is projected to persist into the second quarter of FY2022 to a slightly lesser degree, before returning to baseline healthcare population projections by January 1, 2022 (Q2 FY2022). The effects of this increased enrollment during FY2022 can be seen in *Exhibit 23*.

EXHIBIT 23: PROJECTIONS FOR MEDICAID AND CHIP BASELINE PREMIUM EXPENDITURES AND ENROLLMENT (NOT INCLUDING PLATINO)



Note: Only includes Medicaid (CHIP, Commonwealth- and federally-funded). Excludes Platino dual-eligible, as well as non-direct premium costs (e.g., HIV/PDP, Health Insurance Provider Fee, Air Ambulance, MC21 Administrative Fee, Super Utilizers, and Pulmonary).

Other Commonwealth Medicaid expenditures, which include, HIV/PDP, Air Ambulance, MC21 administrative fee, Super Utilizers, and Pulmonary, among others, are projected to grow at the rate of Puerto Rico healthcare inflation. Separate from those costs is the Health Insurance Tax (HIT), calculated each year by the Federal Government and estimated here to be 1.80% of the prior year's total premiums.[34] The Further Consolidated Appropriations Act, 2020 repealed the HIT requirement. Thus, the 2021 Fiscal Plan only reflects the estimated HIT fee anticipated to be required to be paid in FY2021 on FY2020 premium expenditures. Thereafter, the HIT fee is eliminated from projections.

"Platino" dual-eligible program expenditures were estimated using a consistent $10 PMPM over FY2019-FY2024 representing payment for wrap-around services supplementing main Medicare coverage (from FY2024 onwards, this cost grows by the PMPM growth rate). Enrollment is projected to be affected similarly to Medicaid enrollment. "Platino" costs are expected to remain between $29 million and $31 million from FY2021-FY2024, at which point they grow consistently over the remainder of the period.

5.2.5 Commonwealth pension expenditures

Baseline pension costs: Projections rely on demographic and actuarial estimations for Employees' Retirement System (ERS), Teachers' Retirement System (TRS), and Judiciary Retirement System (JRS) populations and benefit obligations. Since FY2018, pension benefits for all plans have been paid on a pay-as-you-go basis. Starting in FY2022, pensions baseline costs (reflecting System 2000 segregation) are projected to decrease progressively from $2.3 billion in FY2022 to $1.2 billion in FY2051, with an average annual cost across the period of $1.9 billion. The 2021 Fiscal Plan baseline pension expenses are ~$1.4 billion lower (FY2022-FY2051) than in the 2020 Fiscal Plan, primarily driven by updates incorporating new census and mortality data.

34 Sec 4003 of Public Law 115-120—Jan. 22, 2018. "Fourth continuing appropriations for Fiscal Year 2018, Federal Register Printing Savings, Healthy kids, health related taxes, and Budgetary effects," at Based on actuarial estimates provided by ASES

5.2.6 Appropriations

Municipalities: Baseline municipal appropriations are projected to remain constant at ~$220 million annually, which represents the FY2018 appropriation level exclusive of a $78 million *one-time* allotment to municipalities made in the aftermath of Hurricanes Irma and Maria.

University of Puerto Rico (UPR): The UPR baseline appropriation is $717 million from FY2019 to FY2023 and grows by inflation starting in FY2024.

Highways and Transportation Authority (HTA): HTA is currently funded through a combination of own revenues, federal funds, and Commonwealth funds (including both a capital appropriation and an operating appropriation). Within the 2020 HTA Fiscal Plan, toll fares are used to cross-subsidize capital and operating expenditures on non-toll roads. The 205(a) letter of January 29, 2021 recommended that HTA be reorganized into a toll road entity, with non-toll roads managed by DTOP and transit assets managed by PRITA. Therefore, consistent with the 205(a) letter recommendation, the 2021 Fiscal Plan increases the HTA operating transfer to cover the full cost of non-toll assets, marking the first step towards the implementation of the Transportation System Reform outlined in *Chapter 11*. The appropriation does not include funding for the HTA emergency reserve, nor does it draw down existing balances. It also assumes toll roads have access to federal funds until reorganization is complete (assumed FY2023), but not thereafter. As a result, over FY2025-FY2051, the 2021 Fiscal Plan includes an average annual operating appropriation of ~$133 million and average capital appropriation of $68 million per year. The Commonwealth operating transfer may be reduced in a proportionate amount should the Federal Highway Administration (FHWA) federal funding for non-toll assets appropriated to HTA increase.

The HTA operating transfer is intended to be used by HTA solely to fund costs associated to non-toll assets and is not available to be used for any other purposes, including funding costs and projects above and beyond those contemplated in HTA's Certified Fiscal Plan.

5.2.7 Other operating and capital expenditures

Utilities: The 2021 Fiscal Plan uses the estimated billings for electric and water costs provided by PREPA and PRASA, respectively on agency level. Estimated water billings from PRASA are projected to grow at the same rate as water rate increases over the period of FY2021-FY2025; thereafter, PRASA billings are projected to grow at water rate increases and then according to inflation. Estimated electric billings from PREPA are projected to grow at the same rate as power rate increases over the period of FY2021-FY2051.

Parametric insurance: The 2021 Fiscal Plan includes an annual investment of ~$35 million to cover the Commonwealth's portion of the annual cost of parametric insurance. The parametric insurance program is supplemental to the existing budgeted premiums for renewing current traditional insurance policies. The following conditions applicable to Commonwealth entities are placed on the requested funding:

- Develop a sophisticated insurance plan with a comprehensive program that considers the available markets, costs, meeting Operations and Maintenance (O&M) requirements, and levels of coverage. This would include conducting a risk assessment; analyzing expected O&M costs on a building by building basis; identifying the types of insurance needed to protect against risk; identifying insurance gaps, selecting the authority needed to develop, implement and enforce the plan; and crafting the financial arrangement structure for funding the plan and paying for losses
- Strategically consider and prioritize options to supplement the existing insurance coverage (including identifying how the Commonwealth will meet flood insurance requirements and considering expanded limits on existing policies, a separate excess insurance policy above current limits, or a Parametric policy and/or Catastrophe ("CAT") bond)

- Engage the Insurance Commissioner on certification criteria

Insurance (PRIMAS): The Commonwealth bears costs related to insurance premiums (e.g., property insurance, liability insurance). Government reporting on these costs has not been transparent or consistent over time (e.g., not all agencies report these costs independently of other operating expenses, reporting is not consolidated across General Fund and Special Revenue Funds). The Government reported that insurance costs increased from FY2018 to FY2020 due to Hurricanes Maria and Irma. Adjustments were made based on agency reported needs for FY2021 and FY2022 (e.g., costs for Department of Housing have been reduced, costs for PRDE and Institute of Puerto Rican Culture have been increased).

Capital expenditures: Centrally-funded General Fund maintenance and capital expenditures of the Commonwealth (excluding PREPA, PRASA, HTA self-funded capital expenditures and one-time transfers) are expected to grow by inflation from a baseline of $337 million FY2022 to FY2040, at which point maintenance capital expenditures increase to $677 million[35] (1.9% of GNP[36]) and growth with GNP, to account for the new level of capital stock the Commonwealth will be responsible for maintaining post-disaster reconstruction (see *Section 4.2* for more information). In FY2022, ~$53 million of the baseline expenses will be appropriated to HTA (as part of the total appropriations), with the remaining ~$284 million for use by the Commonwealth. The 2021 Fiscal Plan includes annual Special Revenue Fund capital expenditures for the Commonwealth agencies (and the Public Buildings Authority) of $6 million for FY2022 and $22 million (based on historical agency needs) for FY2023 onwards.[37]

5.2.8 Reconstruction and restructuring related expenditures

Cost-share for disaster relief funding: Federal funds for FEMA's Public Assistance, Individual Assistance and Hazard Mitigation programs typically require a local match from the entity receiving them (anywhere from 10-25% of funds). In the case of Puerto Rico, the 2021 Fiscal Plan projects that the Commonwealth will need to cover an estimated ~10% of federal Public and Individual Assistance funds that are obligated to them, amounting to $2.6 billion from FY2018-FY2035. (Based on obligation data, instrumentalities are assumed to shoulder a further $1.6 billion in total cost-match expenditures during the same period). A portion of the Commonwealth and instrumentalities' cost-match expenditures are projected to be covered by CDBG funds from FY2020 to FY2035, which amounts to $2.7 billion. As a result, instrumentalities and the Commonwealth are anticipated to need to cover $500 million and $1 billion, respectively, out of pocket.

After accounting for excess funds budgeted for cost share in FY2018- FY2021 (when DRF disbursements were anticipated to be higher), as well as $135 million in unspent cost share funds considered available for future cost share needs, the ultimate out-of-pocket cost share burden for the Commonwealth is $1.2 billion. Moving forward, cost share matching funds are to be used only on approved projects/ requirements under FEMA's Individual Assistance, Public Assistance, and Hazard Mitigation programs. Any unused cost share matching funds in a given fiscal year are to be rolled over the following fiscal year and remain available for use in meeting cost share requirements for approved projects/requirements under FEMA's programs. The restriction of use of cost share matching funds is applicable to funds in the current year as well as any funds rolled over to the subsequent years. The use of these funds must be coordinated with CDBG-DR and CDBG-MIT in meeting cost share requirements.

Restructuring-related costs: Commonwealth restructuring-related expenditures are projected to be $622 million for the period FY2022 to FY2025, and are comprised of all professional fees, including those of the Unsecured Creditors' Committee, the Retiree Committee,

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35 Includes General Fund portion of 1.9% of GNP and the HTA Capex appropriation (with the 10% reduction on General Fund unallocated Capex)

36 Corresponds to the state average of capex as percentage of GNP

37 Of this amount, $2 million per year goes to Public Buildings Authority (an IFCU) for recurring needs

the Government (mostly the Puerto Rico Fiscal Agency and Financial Advisory Authority, or AAFAF by its Spanish acronym), and the Oversight Board. The estimate for professional fees in the 2021 Fiscal Plan was developed based on estimates prepared by the Oversight Board and fees provided by the Government as part of the Government's submitted 2021 Fiscal Plan. Fees were also benchmarked versus comparable restructuring situations that yield an average professional-fee-to-funded-debt ratio of 2.08% and median ratio of 2.33% relative to 2.48% projected for the Commonwealth (*Exhibit 24*) In total, for the period from FY2018 to FY2026, the restructuring-related expenditures projection is ~$1.6 billion. Uncertainty stemming from the series of recent natural disasters and ongoing COVID-19 pandemic has resulted in an extended restructuring process contributing to the overall estimate. For some perspective, the City of Detroit restructuring (the largest municipal restructuring prior to the Commonwealth of Puerto Rico) took 17 months (July 2013 to December 2014); while the restructuring of the Commonwealth is now approaching 4 years after experiencing hurricanes, earthquakes and the impact of COVID-19. With respect to the Oversight Board's operating costs, they are forecast to be $75 million per year from FY2022 to FY2026 on a *pre-measures* basis (or $65 million after measures).

EXHIBIT 24: PROJECTED PROFESSIONAL FEES RELATIVE TO OTHER MAJOR RESTRUCTURINGS

Professional fees for restructuring

	Date filed	Outstanding debt, $	Total fees and expenses, $	Fees to funded debt, %
City of Detroit, Michigan	Jul. 2013	6,400,000,000[1]	177,910,000	2.8
Residential Capital, LLC	May. 2012	15,000,000,000	409,321,308	2.7
Sabine Oil & Gas Corp.	Jul. 2015	2,800,000,000	78,553,223	2.8
Caesars Entertainment Operating Company	Jan. 2015	18,000,000,000	258,278,005	1.4
Lehman Brothers Holdings Inc.	Sep. 2008	613,000,000,000	956,957,469	0.2
Lyondell Chemical Company	Jan. 2009	22,000,000,000	205,932,292	0.9
American Airlines	Nov. 2011	11,000,000,000	391,637,858	3.6
Washington Mutual, Inc.	Sep. 2008	8,000,000,000	271,085,213	3.4
Edison Mission Energy	Dec. 2012	5,000,000,000	96,244,628	1.9
Energy Future Holdings Corp.	Apr. 2014	40,000,000,000	450,110,233	1.1
Puerto Rico[2]	**2017**	**64,000,000,000[3]**	**1,584,050,751**	**2.5**

Summary Statistics

Avg.	2.08%
Max	3.56%
Min	0.16%
Med	2.33%

Puerto Rico involves added complexity as the largest public sector restructuring in the history of the United States

1 Excludes pensions and other retirement liabilities
2 Debt amount for Puerto Rico does not include over $50 billion in unfunded pension liabilities.
3 From "Basic Financial Statements and Required Supplementary Information" for fiscal year ended June 30, 2016 prepared by the Puerto Rico Department of the Treasury; inclusive of unaccreted interest of capital appreciation bonds; rounded up from $63.9B for consistency with other cities

Emergency reserve: The purpose of the Emergency Reserve fund is to expedite response activities and, upon request, provide the Commonwealth agencies, public corporations and affected municipalities ("Emergency Reserve Recipients") with capital to quickly begin response activities that exceed their capacity during declared events in Puerto Rico. Starting in FY2019, the Commonwealth must set aside $130 million annually into an emergency reserve that is to total $1.3 billion, or ~2.0% of FY2018 GNP. The methodology supporting this reserve is informed by

DRA Ex. 236

guidance provided to other Caribbean islands by the International Monetary Fund in defining an adequate emergency reserve (2-4% of GNP, accumulated at 0.5% per year).[38]

Restrictions placed on these funds must ensure that it is only used in case of an extraordinary event like natural disasters or as otherwise agree with the Board; the Commonwealth can only make disbursements with approval from the Oversight Board. Historically, the Oversight Board has authorized use of the emergency reserve in response to the 2017 hurricanes (Maria and Irma), the 2020 earthquakes impacting the southwestern part of Puerto Rico, and the COVID-19 pandemic. Moving forward, a fund advance will require the following:

- The Governor would need to declare a state of emergency
- AAFAF requests FOMB access to the emergency reserve fund for a finite period
- Once FOMB authorizes access to the emergency reserve funds; OMB would submit to FOMB requests from the Emergency Reserve Recipients to approve amount and usage of funds
- Amounts approved by the FOMB and disbursed to the Emergency Reserve Recipients would need to be replenished not later than the following fiscal year
- Emergency Reserve Recipients that received funds from the emergency reserve fund are required to file with FEMA a Request for Public Assistance (RPA) and Project Worksheet to ensure that any federal reimbursements to Emergency Reserve Recipients are replenished into to the emergency reserve state fund
- Emergency Reserve Recipients are required to update OMB on a quarterly basis on the process of Public Assistance with FEMA
- OMB must provide quarterly reporting to FOMB on the use of authorized funds (see *Chapter 21* for more information)

5.2.9 Expenditure gross-ups

For each of the gross-up revenue items included in *Section 5.1.5* and *Section 5.1.6*, an equivalent expenditure is included in the baseline expense forecast.

5.3 Surplus potentially not available for the Commonwealth

The 2021 Fiscal Plan financial projections show the surplus generated by all entities covered by the Commonwealth Fiscal Plan. However, some of the surplus is generated by Commonwealth public corporations, and the Commonwealth's ability to access such surplus amounts could be problematic without further legislative action. As such, the 2021 Fiscal Plan also represents what the surplus would be if these funds were inaccessible (*Exhibit 25*).

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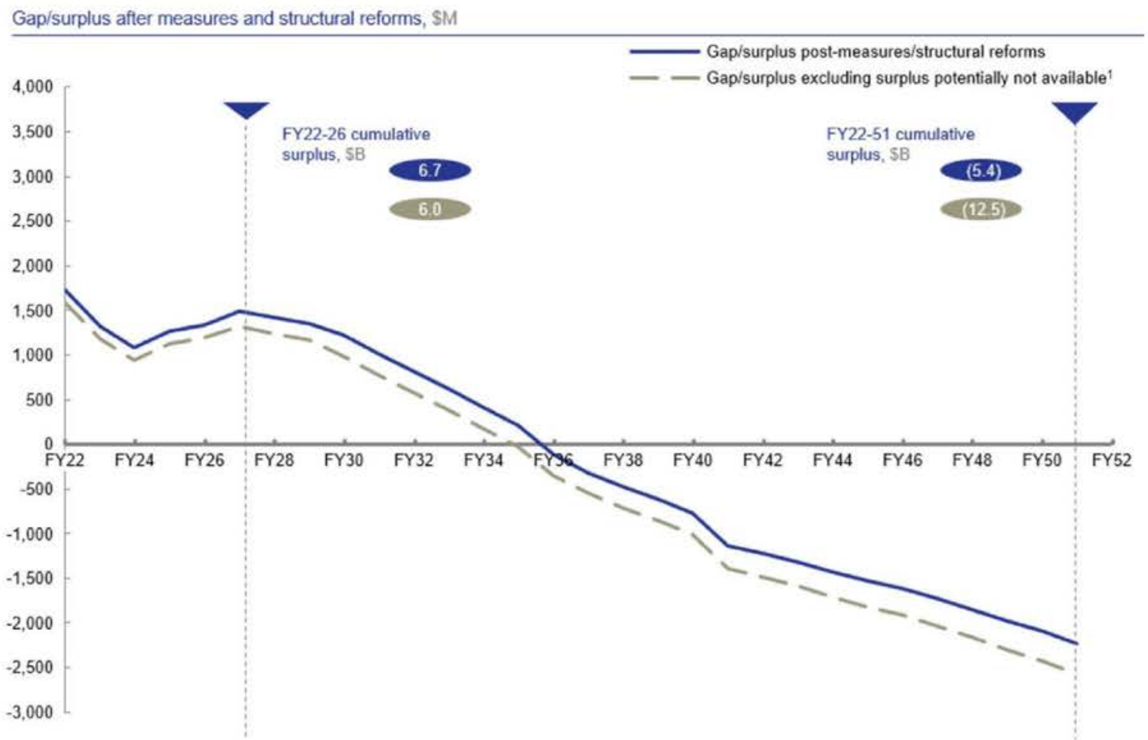
38 IMF Bahamas Article IV report published March 22, 2018

EXHIBIT 25: SURPLUS POTENTIALLY NOT AVAILABLE FOR COMMONWEALTH



1 These surplus amounts are generated by Commonwealth corporations and the Commonwealth's ability to access such surplus amounts could be at risk without further legislative action

Chapter 6. Long-term projections and Debt Sustainability Analysis (DSA)

6.1 Long-term macroeconomic, revenue, and expenditure projections

The 2021 Fiscal Plan projects a post-pandemic recovery in FY2021 and FY2022, followed by limited real growth between FY2023 and FY2029 (average real growth of 0.2% during this period). As disaster relief funding and the spending of COVID-19 federal and local stimulus funds drop off considerably and structural reform growth rates are muted, GNP growth returns to its historical negative trend starting in FY2030. Population is estimated to steadily decline at an average rate of ~1.2% annually, due to a combination of outmigration and demographic factors. Inflation is estimated to settle at a long-term run-rate of 1.5%-1.9% as it is expected to gradually approach to mainland forecasts.

Most revenues are projected to grow with nominal GNP in the long term.[39] This includes SUT, corporate income tax, personal income tax, non-resident withholding not paid by Act 154 entities and most General Fund revenues. Exceptions include:

39 This methodology is consistent with general IMF forecasting approaches and is intended to capture the overall change in consumption, investment and production within the economy

- **Alcoholic beverages and cigarette-related tax revenues,** which are expected to grow by inflation and population. This assumption is supported both by relatively constant alcohol consumption in growing economies along with the long-term decline in cigarette consumption both in Puerto Rico and the U.S. mainland.

- **Rum excise on offshore shipments,** is expected to grow by U.S. mainland population and is partially driven by the statutory waterfall by which rum excise taxes are paid into the General Fund.

- **Non-resident withholding (NRW) and Act 154 revenues,** which will face declines due to U.S. tax reform, supply chain diversification, and patent expirations. This decline had begun during FY2020, with incremental declines forecasted in each year through FY2024 (~40% cumulative decline versus FY2018 baseline). No further declines are anticipated through FY2027; however, additional loss of Act 154 revenue are expected in FY2028-FY2031, such that FY2031 revenues are projected to be ~60% below baseline. This leads to a steady state of $859 million in annual Act 154 revenues beginning in FY2031. NRW revenues associated with Act 154 taxpayers have also declined. Based on past and current performance, NRW payments are projected at $170 million in FY2022 (~60% below baseline). NRW revenues not related to Act 154 payers continue to grow with nominal GNP.

- **Independently Forecasted Component Units (IFCU) revenues**, which are projected on a line item basis and grow by the same values as in the short-term projections (largely by nominal GNP, with exceptions for those related to healthcare, population, or other factors).

- **Federal fund revenues,** which grow based on historical and statutory appropriations. The standard cap for **Medicaid matching funds** grows by the medical services component of CPI-U and CHIP funding grows proportional to growth of premiums and enrollment. However, several significant sources of federal funding for Medicaid (e.g., the Affordable care act or ACA, the Bipartisan Budget Act of 2018 or BBA, the Further Consolidated Appropriations Act, the Families First Act) are only legislated through the first quarter of FY2022, or through September 30, 2021. **This creates a "fiscal cliff" starting in FY2022 whereby the share of Medicaid funding borne by the Commonwealth increases significantly.** Between FY2023 and FY2051, average annual federal funding for Medicaid is 15.7% of total expenditures (versus 38% in FY2022). While additional federal funding for Medicaid may be provided in the future, the 2021 Fiscal Plan only reflects federal funding provided by currently-enacted legislation.

Just as most revenues grow by GNP, most **expenditures grow by standard inflation** after FY2026. Exceptions include:

- **Medicaid premiums** grow at a faster pace than standard inflation and are instead grown by a PMPM growth rate and population change. The PMPM growth rate is estimated through actuarial analysis of historic utilization trends and projected demographic changes on-Island. Long-term PMPM growth trends (FY2027-FY2051) will be 4.95% on average.

- **Capital expenditures** are anticipated to rise to 1.9% of GNP (in line with the mainland average) by FY2041 to account for an enhanced capital stock needing maintenance after the significant reconstruction efforts in the wake of Hurricanes Maria and Irma. This change in methodology increases the annual Commonwealth average to ~$759 million over FY2041-FY2051, as Puerto Rico must sustain a higher level of maintenance and rely on its own funding for capital investments (rather than disaster relief funding).

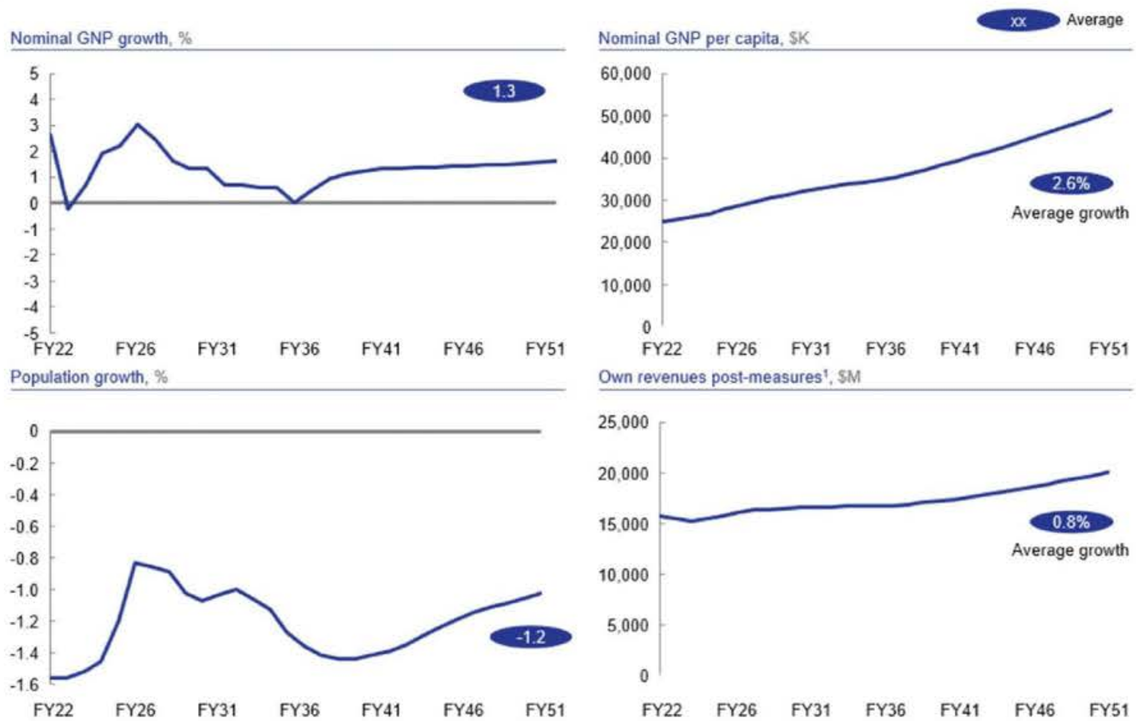
- **Cost match for disaster-related federal funding** reaches an average of ~$28 million from FY2027 to FY2035, after full usage of CDBG-DR funds available for local cost matching. The Commonwealth is not responsible for the portion of funds allocated to instrumentalities (e.g., PREPA, PRASA, HTA, UPR).

- **Independently Forecasted Component Units (IFCU) expenditures** are forecasted on a line item basis. Most grow with standard Puerto Rico inflation with some exceptions, such as healthcare- or claims-related expenditures. Over the long-term, the expenses of some healthcare-related IFCUs (e.g., Cardio) are projected to grow faster than revenues, creating a deficit. This 2021 Fiscal Plan assumes deficits related to healthcare will be funded by the Commonwealth.

- **Fiscal measures** grow by their relevant macroeconomic indicator (e.g., revenues by nominal Puerto Rican GNP, expenditures by Puerto Rican inflation, healthcare measure by health inflation and population).

The long-term macroeconomic and financial projections are shown below. *Exhibit 26* shows the forecasted Nominal GNP, which maintains a positive growth for almost all years (mainly due to an stable and positive inflation), the estimated rate at which population is expected to decline, the growing Nominal GNP per capita that results from the combination of the first two, and the corresponding trend of own revenues. The estimations of all metrics, as well as corresponding projected revenues, expenditures, and fiscal gap or surplus are shown on *Exhibit 27* for selected years. Finally, *Exhibit 28* shows what these projections are with or without structural reforms.

EXHIBIT 26: FY2022-51 FINANCIAL PROJECTIONS



1 Own revenues includes all Commonwealth-collected revenues and excludes all federal transfers and gross up revenues; includes impact of COFINA settlement

DRA Ex. 236

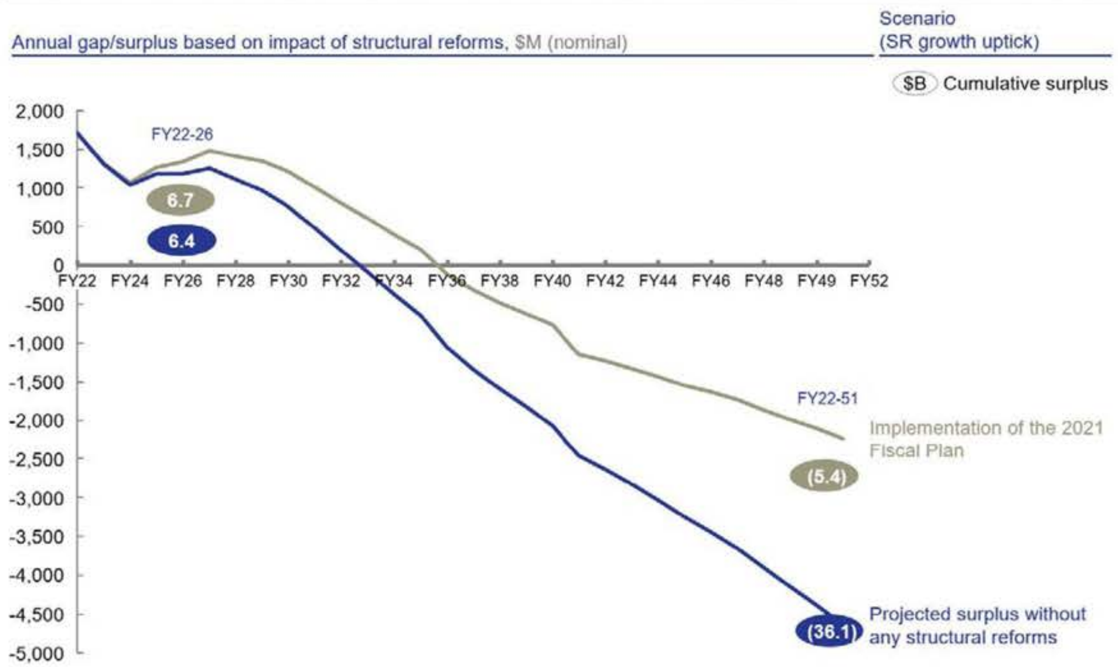
EXHIBIT 27: LONG-TERM FISCAL PLAN PROJECTIONS POST-MEASURES AND STRUCTURAL REFORMS

Financial projection detail post-measures and structural reforms, units as labeled

Projection	FY26	FY31	FY36	FY41	FY46	FY51
Population, thousands	2,764	2,637	2,496	2,324	2,178	2,062
Population growth rate, %	-1.2%	-1.1%	-1.3%	-1.4%	-1.2%	-1.0%
Real growth rate[5], %	**0.7%**	**-0.2%**	**-1.5%**	**-0.5%**	**-0.4%**	**-0.3%**
Nominal GNP, $M	**76,759**	**84,555**	**86,769**	**91,303**	**97,809**	**105,594**
Nominal GNP per capita, $	27,770	32,062	34,769	39,284	44,913	51,208
Nominal GNP per capita growth, %	3.4%	2.4%	1.3%	2.8%	2.7%	2.7%
Inflation, %	**1.5%**	**1.5%**	**1.6%**	**1.9%**	**1.9%**	**1.9%**
Disaster funding, $M	5,883	4,546	-	-	-	-
Revenues[1], $M	**20,914**	**22,135**	**22,743**	**24,016**	**25,878**	**28,069**
Commonwealth GF and SRF revenues	15,757	16,545	16,689	17,406	18,627	20,081
Federal transfers[2]	5,158	5,591	6,053	6,610	7,251	7,988
Expenditures[1], $M	**(19,581)**	**(21,126)**	**(22,862)**	**(25,165)**	**(27,505)**	**(30,306)**
Commonwealth-funded expenditures	(14,431)	(15,540)	(16,807)	(18,542)	(20,233)	(22,278)
Federally-funded expenditures	(5,150)	(5,586)	(6,055)	(6,623)	(7,272)	(8,028)
Gap / surplus, $M	**1,334**	**1,009**	**(119)**	**(1,149)**	**(1,627)**	**(2,237)**
Contractual debt service payments[3]	(1,668)	(1,867)	(1,144)	(990)	(163)	(50)
Net gap / surplus, $M	**(334)**	**(858)**	**(1,264)**	**(2,138)**	**(1,790)**	**(2,286)**
Surplus potentially not available[4], $M	*152*	*238*	*234*	*253*	*294*	*339*

1 Revenues and expenditures excluding gross up adjustments; revenues do not include Earned Income Tax Credit
2 Does not include the recently approved additional federal funding for the local EITC extension, since it would be received as a reimbursement
3 Debt service based on prepetition contractual debt obligations. Presented for illustrative purposes only and does not represent anticipated future payments on restructured debt. Includes GO, PBA, CCDA, PRIFA, PFC, ERS. The 2021 Fiscal Plan does not assume any predetermined outcome of ongoing litigation with respect to GO bonds
4 These surplus amounts are generated by Commonwealth corporations and the Commonwealth's ability to access such surplus amounts could be at risk without further legislative action
5 Adjusted for income effects

EXHIBIT 28: ANNUAL GAP/SURPLUS BASED ON IMPACT OF STRUCTURAL REFORMS



DRA Ex. 236

The 2021 Fiscal Plan shows short-term surpluses driven by significant federal relief as well as fiscal measures and structural reforms. Long-term deficits are driven by healthcare costs that outpace GNP growth (even after reforms, in part due to the Medicaid "fiscal cliff"), lack of robust structural reforms, phase out of disaster relief funding, and declining Act 154 revenues.

While the 2021 Fiscal Plan projects deficits from FY2036 onward, the Government will be required to take additional measures that go beyond the FY2022-26 framework of this 2021 Fiscal Plan as the Puerto Rico Constitution requires the Government to operate within a framework of fiscal balance. Accordingly, what follows are a set of options that can be considered to obtain fiscal balance in the out-years. Some of these reforms – which would reduce deficits and therefore make funds available for a variety of potential uses, including investment in the people of Puerto Rico – have been proposed by the Oversight Board, but have not been adopted. The Government must take up these reforms and implement them to realize their benefits.

- **Securing additional permanent federal funding for Medicaid** of ~$1 billion per year (and growing with inflation) is projected to increase the FY2022-51 surplus by ~$20 billion if begun in FY2031 and ~$10 billion if begun in FY2041.

- **Imposing a cap on total healthcare expenditure growth** at 2% above standard inflation is projected to result in savings of ~$14 billion by FY2051 if implemented in FY2031 and ~$2.4 billion if implemented in FY2041.

- **Private sector labor reform,** generating an additional 0.50% GNP growth over two years, by repealing Law 80 of May 30, 1976, which would make Puerto Rico an employment at-will jurisdiction, similar to its principal competitor mainland states, such as Florida. This would reduce the cost of hiring workers on the Island, improving the environment for local businesses and potentially attracting additional investment from the mainland into Puerto Rico. The reform is projected to increase the FY2022-51 surplus by ~$13 billion if implemented in FY2031 and by ~$4 billion if implemented in FY2041.

- **Ease of doing business reform,** generating an additional 0.15% GNP growth, based on instituting trading across borders reform, and repealing restrictive and inefficient regulations, and implementing a comprehensive reform of the Transportation system, similar to the one described in *Chapter 11*, which would contribute to unlock greater impact across all other ease of doing business initiatives, allowing Puerto Rico to better compete for new investments with jurisdictions around the world. The FY2022-51 surplus is projected to increase by ~$4 billion if implemented in FY2031 and by ~$1 billion if implementation takes place in FY2041.

- **Overhaul of the tax system of Puerto Rico** to stimulate growth by lowering the statutory marginal tax rates and broadening the tax base by eliminating many exemptions, deductions, credits, and incentives. This would simplify the tax paying structure and process, improving the business environment and delivering long-term growth benefits up to 0.5% spread over five years. The reform is projected to increase the FY2022-51 surplus by ~$11 billion if implemented in FY2031 and by ~$3 billion if implementation takes place in FY2041.

- **Growing the pharmaceutical and medical devices manufacturing sector** given the unique opportunity for Puerto Rico to be a center of excellence and play a leading role in the national portfolio of locations for expanded domestic manufacturing in this sector. The physical infrastructure, human capital, and regulatory processes are already established and well positioned. Previous analyses published by the Board had shown the potential value on economic growth and employment that this effort could have.

Risks to the long-term projections in the 2021 Fiscal Plan. While the 2021 Fiscal Plan projects that ~$15.2 billion in surplus will be generated through FY2022-FY2035, there are several variables that have a material impact on the long-term financial projections. The extent at which the economic activity will recover from the COVID-19 pandemic impact and the time it will take to return to pre-pandemic levels remain highly uncertain and could prove to be narrower and longer-lasting than anticipated. Moreover, revenues could be compromised through lower growth

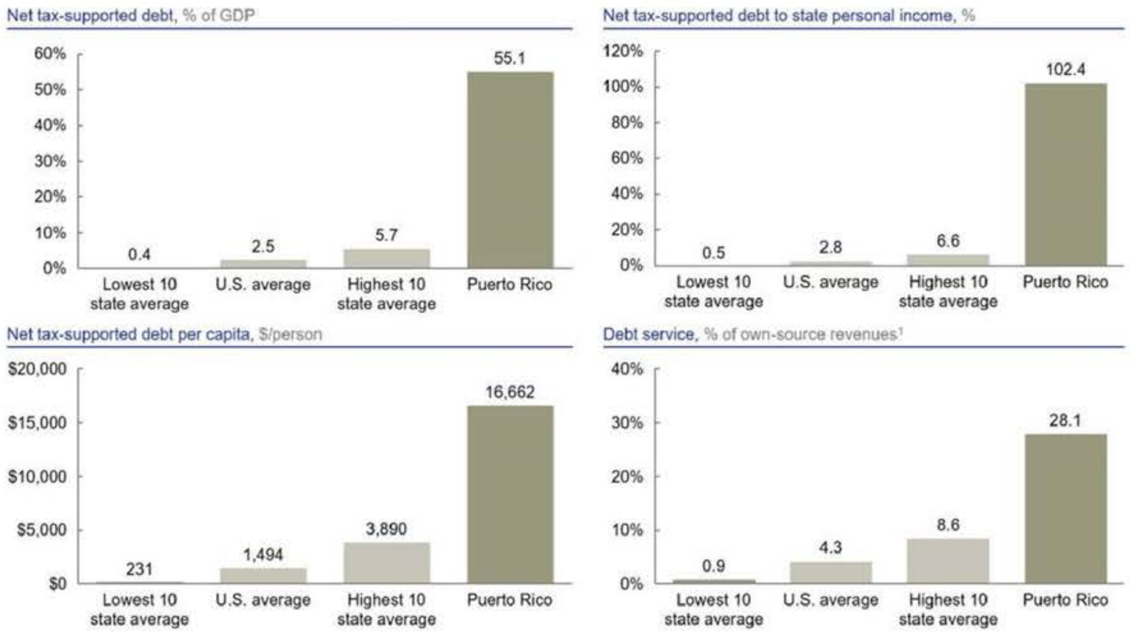
generated by delays or failures to implement structural reforms, lower than expected federal funding, and/or less efficient spending on capital than projected. Both revenues and expenditures could be impacted by demographic shifts not yet seen on the Island or other external shocks or natural disasters. Finally, expenditures could be impacted if, once the Oversight Board is terminated, the Government reverses its focus on fiscal discipline and allows Government expenditures to increase.

6.2 Debt Sustainability Analysis (DSA)

The DSA is intended to provide a framework for assessing the long-term capacity of the Government to pay debt service on its bonded debt. Debt levels post-restructuring need to be sustainable over the long-term and consistent with both a minimal risk of default on the restructured debt and a recovery of market access for future new money borrowings for ongoing infrastructure investment. The analysis begins with the 2021 Fiscal Plan and is then informed by the debt sustained by the most appropriate peer group against which to benchmark Puerto Rico. The DSA then applies rating agency metrics for that benchmark group to Puerto Rico to arrive at an assessment of what debt levels are sustainable in light of long-term projections and the peer metrics. Net tax-supported debt is defined as debt payable from statewide taxes and other general resources, net of obligations that are self-supporting from pledged sources other than state taxes or operating resources (such as utility or local government revenues). Prior to the enactment of PROMESA, Puerto Rico had approximately $45 billion in tax-supported debt with a declining economy and no guarantee of sustained federal funding. Net tax-supported debt is comprised of GO, PBA, COFINA, PRIFA, HTA, CCFA, ERS, Public Finance Corporation (PFC), and other intergovernmental loans.

US states as peer comparables: Like U.S. states, Puerto Rico does not control its own currency, has no access to IMF restructuring support programs or similar international sovereign relief funding packages, and traditionally has been reliant on access to the same long-term municipal bond market used by mainland U.S. states to finance their capital needs. Puerto Rico's bonds are also rated by the same rating agency analyst groups that assign ratings to mainland U.S. states, not by foreign sovereign bond rating analysts. For these and other reasons, Puerto Rico has more similarities to U.S. states than to sovereign nations. By virtually any measure tracked by the rating agencies, Puerto Rico's existing debt levels are clear outliers relative to these U.S. state peers (*Exhibit 29*).

EXHIBIT 29: U.S. STATES AS COMPARABLES



1 Own revenues includes all Commonwealth-collected revenues and excludes all federal transfers
NOTE: Puerto Rico benchmark metrics per Moody's debt service as % of revenues based on 2015 own-source government revenues, personal income reflects FY18 preliminary estimates from Commonwealth. In Puerto Rico's case, net tax supported debt totals approximately $45 billion and includes GO, PBA, COFINA, PRIFA, HTA, CCDA, ERS, PFC, and UPR

Source: Moody's investors service, "Medians – Flat debt total signals cautious borrowing, despite infrastructure needs from June 3, 2019, Puerto Rico data from Moody's investors service, "Medians – Total State Debt Remains Essentially Flat in 2017 from May 3, 2017"

While some observers note that Puerto Rico residents do not pay federal income taxes, they do pay Social Security and Medicare taxes, and the low per capita income levels would place most local residents in a tax bracket where they would otherwise pay little or no federal income tax. Meanwhile, federal reimbursement levels provided to Puerto Rico for the largest Government spending programs (including Medicaid and transportation) are capped at levels well below the FMAP and federal highway reimbursement levels provided to comparably sized and wealthier states. Puerto Rico's residents pay graduated income taxes to Puerto Rico at brackets comparable to the federal income tax rates, thereby providing the funds needed to provide services to the Puerto Rico resident population, which is far poorer than the population of any U.S. state. Yet Puerto Rico receives far less federal support.

Metrics for debt sustainability: Viewing U.S. states as the most comparable group for benchmarking Puerto Rico, the DSA uses the debt ratio metrics in the May 12, 2020 Moody's Investors Service (Moody's) report "Medians – State debt declined in 2019, but likely to grow in coming years" and the "Fixed Costs" ratio metrics in *Exhibit 30* of the September 18, 2020 Moody's report "Medians – Pension and Other Postemployment Benefits (OPEB) liabilities fell in fiscal 2019 ahead of jump in 2020" to develop a range of levels for sustainable debt capacity, including Maximum Annual Debt Service (MADS) levels for Puerto Rico on its restructured existing debt. The key debt ratios for the ten lowest indebted states, the 25 lowest indebted states, the 25 highest indebted states, the ten highest indebted states, and the mean for all U.S. states are shown below (*Exhibit 30*).

EXHIBIT 30: KEY DEBT RATIOS FOR U.S. STATES

	Net tax-supported debt, % of GDP[1]	
	Low 10	0.4
	Low 25	0.9
	Mean	2.3
	Top 25	3.8
	Top 10	5.4
1	Connecticut	8.3
2	Hawaii	8.1
3	Massachusetts	7.2
4	New Jersey	5.7
5	Mississippi	4.8
6	Kentucky	4.7
7	Delaware	4.3
8	West Virginia	3.9
9	Rhode Island	3.9
10	New York	3.7

	Net tax-supported debt to state personal income, %[1]	
	Low 10	0.4
	Low 25	1.0
	Mean	2.6
	Top 25	4.2
	Top 10	6.1
1	Hawaii	9.6
2	Connecticut	8.4
3	Massachusetts	8.3
4	Delaware	6.1
5	New Jersey	5.8
6	Kentucky	5.2
7	Mississippi	4.8
8	New York	4.6
9	Illinois	4.5
10	Rhode Island	4.1

	Net tax-supported debt per capita, $[1]	
	Low 10	209
	Low 25	500
	Mean	1,505
	Top 25	2,511
	Top 10	3,900
1	Connecticut	6,637
2	Massachusetts	6,258
3	Hawaii	5,528
4	New Jersey	4,125
5	New York	3, 314
6	Delaware	3,289
7	Illinois	2,635
8	Washington	2,579
9	Maryland	2,323
10	Rhode Island	2,308

	Debt Service, % of own-source revenues[2]	
	Low 10	0.9
	Low 25	2.1
	Mean	4.3
	Top 25	6.5
	Top 10	9.2
1	Connecticut	14.7
2	Massachusetts	10.5
3	Illinois	9.9
4	Hawaii	9.8
5	New Jersey	9.6
6	Kentucky	9.3
7	New York	7.5
8	Washington	7.3
9	Maryland	6.8
10	Mississippi	6.4

	Fixed Costs, % of own-source revenues[2]	
	Low 10	3.1
	Low 25	5.1
	Mean	9.7
	Top 25	14.3
	Top 10	20.0
1	Colorado	31.0
2	Idaho	27.3
3	Kansas	23.5
4	Georgia	22.1
5	New Hampshire	21.3
6	Maryland	18.6
7	Maine	15.9
8	Oregon	13.8
9	Washington	13.7
10	Pennsylvania	13.1

1 Moody's investors service, "Medians – State debt declined in 2019, but likely to grow in coming years" from May 12, 2020
2 Moody's investors service, "Medians – Pension and OPEB liabilities fell in fiscal 2019 ahead of jump in 2020" from September 8, 2020
"Fixed costs" are the FY2019 sum of each state's (1) net tax-supported debt service expense and their (2) actual budgetary contributions to pension expense and retiree health care ("OPEB"), as reported by Moody's

Exhibit 31 uses the long-term macroeconomic forecast to determine a range of implied debt capacity based on the debt and fixed cost metrics of the average U.S. state. The debt capacity ranges shown are based off the following five methodologies: (i) debt to own-source revenues, (ii) debt per capita, (iii) debt to state personal income; (iv) debt to GDP; and (v) fixed costs to own-source revenues. Implied debt capacity and expected growth in debt capacity must be sufficient to cover both restructured debt and debt service on any future new money capital borrowings Puerto Rico needs to maintain its public infrastructure. To the extent new and additional revenues are enacted in the future, including revenues designed to support future capital projects or generated by public-private partnership infrastructure investments, those initiatives could generate additional debt capacity for Puerto Rico that is not reflected in the current 2021 Fiscal Plan projections. Consistent with the February 22, 2021 Commonwealth Plan Support Agreement, the debt service on Commonwealth tax-supported debt (excluding COFINA senior bonds) is limited to 25 years for the purposes of this analysis. The 5-year average capacity statistics represent the average par amount between the five methodologies of an implied 5.00% 25-year - level debt service structure. Moody's defines "fixed costs" as the sum of a state's annual debt service and its annual budgetary pension and retiree healthcare (i.e., Other Post-Employment Benefits (OPEB)) expenditures. Given that Puerto Rico's public employee pension system is essentially zero percent funded – and that as a consequence the Central Government will pay pension expenditures on a fully PayGo basis from budgeted revenues each year – the fixed costs ratio helps capture that burden in comparison to the level of fixed costs as a percentage of Own Source Revenues for U.S. States.

DRA Ex. 236

EXHIBIT 31: IMPLIED NET TAX-SUPPORTED DEBT CAPACITY RANGE BASED ON AVERAGE U.S. STATE

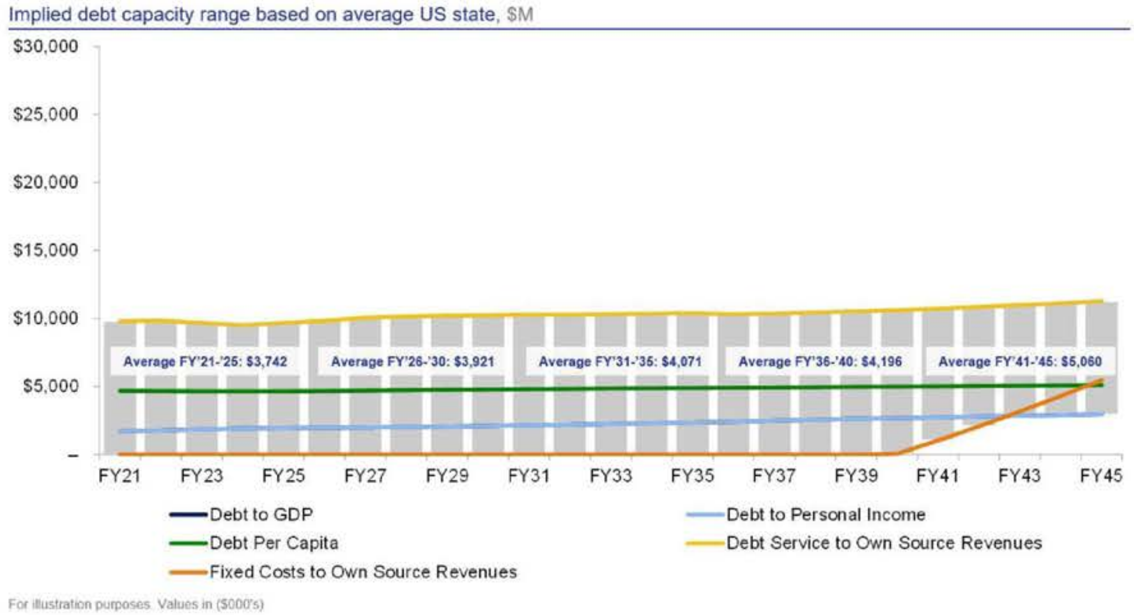
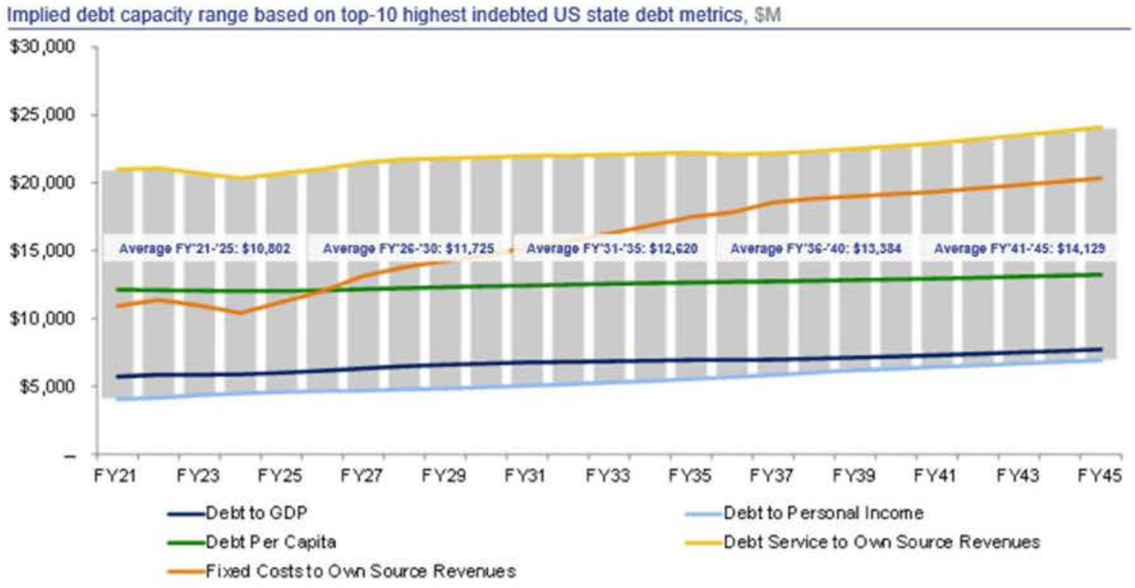


Exhibit 32 uses the long-term macroeconomic forecast to determine a range of implied debt capacity based on the debt metrics of the *10 highest indebted* U.S. states. The debt capacity ranges shown are based off the following five methodologies: (i) debt service to own source revenues, (ii) debt per capita, (iii) debt to state personal income, (iv) debt to GDP, and (v) fixed costs to own-source revenues. Implied debt capacity and expected growth in debt capacity must be sufficient to cover both restructured debt and future debt issuance. The 5-year average capacity statistics represent the average amount between the five methodologies of an implied 5.00% 25-year level debt service structure.

DRA Ex. 236

EXHIBIT 32: IMPLIED NET TAX-SUPPORTED DEBT CAPACITY RANGE BASED ON TOP-10 HIGHEST INDEBTED U.S. STATE DEBT METRICS



For illustration purposes. Values in ($000's)

The illustrative implied levels of the Government's restructured debt in the previous chart are calculated by applying the Net Tax Supported Debt ratios of the "top ten" U.S. states (in terms of debt load) to Puerto Rico's future projected GDP, population and Own-Source Revenues. Debt Service to Own Source Revenue and Fixed Costs to Own Source Revenues figures are derived assuming debt service of a long-term level debt service structure, 5.00% average coupon and 25-year level debt service structure.

Exhibit 33 uses the long-term macroeconomic forecast to determine a range of implied debt capacity based on the debt metrics of the *25 highest indebted* U.S. states with the same five methodologies.

DRA Ex. 236

EXHIBIT 33: IMPLIED NET TAX-SUPPORTED DEBT CAPACITY RANGE BASED ON TOP-25 HIGHEST INDEBTED U.S. STATE DEBT METRICS

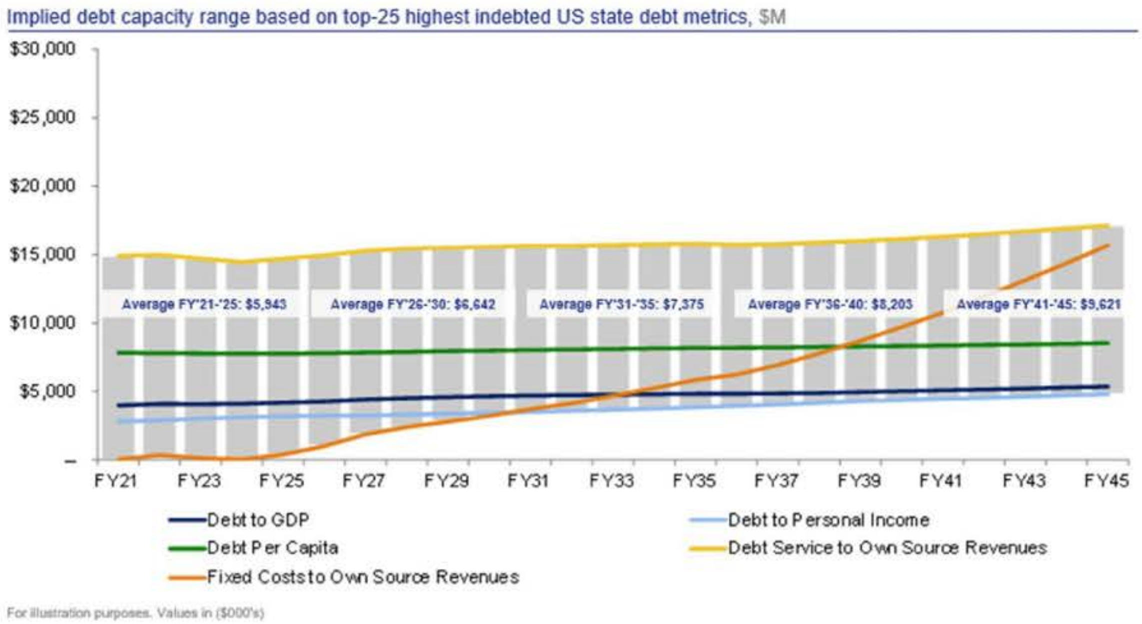
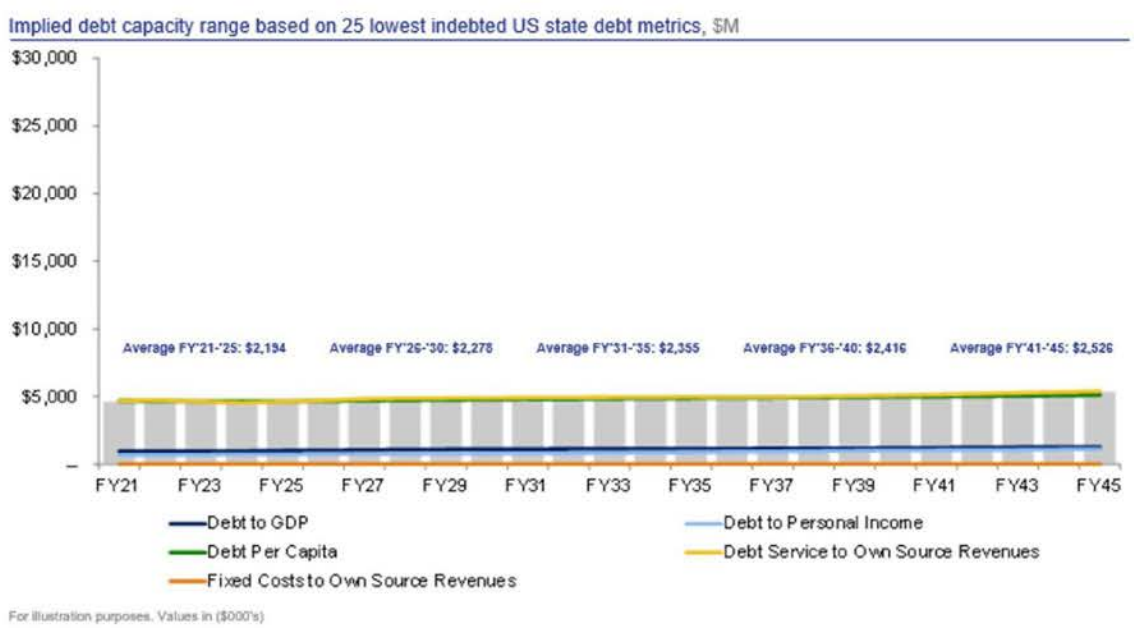


Exhibit 34 uses the long-term macroeconomic forecast to determine a range of implied debt capacity based on the debt metrics of the *25 lowest indebted* U.S. states with the same five methodologies.

EXHIBIT 34: IMPLIED NET TAX-SUPPORTED DEBT CAPACITY RANGE BASED ON 25 LOWEST INDEBTED U.S. STATE DEBT METRICS



DRA Ex. 236

Maximum annual debt service cap on fixed payment debt: The implied debt capacity and expected growth in debt capacity is the Oversight Board's determination of the highest debt service levels that would be compatible with economic sustainability, fiscal responsibility, and the regaining of market access. The maximum MADS level is derived from both the 2021 Fiscal Plan cash flow projections and U.S. state rating metrics, and specifically a rating metric that Moody's calls the "Debt Service Ratio." The Debt Service Ratio is the ratio of total payments due in a year on all existing net tax-supported debt over that state government's debt policy revenues in that year. The debt policy revenues for the Commonwealth are forecast to be $16.2B in FY2022 and to increase to $21.1B by FY2051.[40]

The Moody's report indicates that the average Debt Service Ratio for the all U.S. states is 4.3% (see *Exhibit 30*). The Moody's report indicates that the average Debt Service Ratio for the top 10 most indebted states is 9.2%. The Moody's report indicates that the average Debt Service Ratio for the top 25 most indebted states is 6.5%. The Moody's report indicates that the average Debt Service Ratio for the 25 lowest indebted states is 2.1%. To the extent any of these Debt Service Ratios is used to set a MADS cap on the restructured debt and the Primary Surplus is below the MADS level, then the debt service due on fixed payment debt would need to be set at the lower of the amount available for debt service or the MADS limit.

With respect to the Moody's Fixed Costs Ratio, the September 2020 Moody's report indicates that the average Fixed Costs Ratio for all U.S. States is 9.7%. The same report indicates that the average Fixed Costs Ratio for the 10 States with the highest Fixed Costs Ratios is 20.0%, the average Fixed Costs Ratio for the 25 States with the highest Fixed Costs Ratios is 14.3%, and the average Fixed Costs Ratio for the 25 States with the lowest Fixed Costs Ratios is 5.1%.

Debt sustainability analysis. *Exhibit 35* below calculates implied debt capacity based on a range of interest rates and 2021 Fiscal Plan risk factors under an assumed illustrative 25-year term and level debt service. The risk factor is calculated by reducing the amount of projected cash flow available per year for debt service by a certain percentage. For example, a 20% risk factor case would use only 80% of the projected cash flow available to pay debt service on fixed payment debt.

EXHIBIT 35: IMPLIED DEBT CAPACITY BASED ON RANGE OF INTEREST RATES AND RISK FACTORS

Implied debt capacity based on range of interest rates and contingency, $M

		Sensitivity Analysis: Implied Debt Capacity at 20% contingency			
Illustrative Cash Flow Available		**$200**	**$400**	**$600**	**$800**
Sensitivity Analysis: PV Rates %	**4.0%**	$2,500	$4,999	$7,499	$9,998
	5.0%	2,255	4,510	6,765	9,020
	6.0%	2,045	4,091	6,136	8,181
		Sensitivity Analysis: Implied Debt Capacity at 5% PV Rate			
Illustrative Cash Flow Available		**$200**	**$400**	**$600**	**$800**
Sensitivity Analysis: % Contingency	**10.0%**	$2,537	$5,074	$7,611	$10,148
	20.0%	2,255	4,510	6,765	9,020
	30.0%	1,973	3,946	5,919	7,893

40 Calculated as adjusted revenue post measures (excluding federal transfer) plus COFINA debt service. COFINA debt service figures based on Per page 15 of June 2020 COFINA Certified Fiscal Plan. See appendix for forecast annual debt service revenue through FY2051 (see *Section 24.2*)

Restoration of cost-effective market access: As Puerto Rico seeks to regain cost-effective capital markets access, rating analysts and investors will demand that the Government demonstrate improvement in all four core areas of creditworthiness identified by Moody's: (i) the economy, (ii) Government finances, (iii) governance, and "fixed cost" debt service, and (iv) pension expenditures. The Government must adhere to structurally balanced budgets reflecting ongoing fiscal discipline and return to the timely publication of audited financial statements and related disclosure information. Together, these and other measures outlined in the 2021 Fiscal Plan can chart a path to restoring Puerto Rico's market access.

PART III: Restoring growth to the Island

The fiscal and economic turnaround of Puerto Rico cannot be accomplished without the implementation of structural economic reforms that promote the transformation of the Island's economy and its workforce. Puerto Rico struggles from an uncompetitive labor market, unreliable energy and infrastructure, regulatory and other burdens that hinder business productivity, and low educational outcomes and workforce support – all of which prevent it from competing in a global economy and from attaining positive economic growth. Structural reforms—those that seek to strengthen the fundamental drivers of economic growth to encourage job creation, investment, and increased productivity—could transform Puerto Rico's future. Years of successive natural disasters and health crises further underscore the need for comprehensive Government action as outlined in this 2021 Fiscal Plan to reverse the economic challenges that have plagued the Island and its people for far too long. If implemented quickly and widely, structural reforms are projected to drive real economic growth, reversing decades-long economic challenges and enabling the Island's economy and its people to flourish.

Specifically, the Government must pursue the following structural economic reforms to achieve their forecasted economic impact:

- **Human capital and welfare reforms** that will improve the well-being and self-sufficiency of all local residents, increase the quality and competitiveness of the workforce, enable investment, and facilitate the economic modernization of the Island, resulting in a cumulative GNP impact of 0.15% by FY2025.
- **K-12 education reforms** that will position all students to succeed in school and upon graduation by raising the quality of the Island's public schools, resulting in an additional 0.01% GNP impact per year starting in FY2037 (i.e., reaching 0.15% by FY2051).[41]
- **Ease of doing business reforms** that will improve conditions for economic activity and business vitality, attracting new investment and creating jobs, resulting in a cumulative GNP impact of 0.30% by FY2026.
- **Power sector reforms** that will improve the availability, reliability, and affordability of energy for families and businesses, resulting in 0.30% cumulative GNP impact by FY2026.
- **Infrastructure reform and capital investment** that will improve the flow of goods, services, information, and people across the Island.

Unfortunately, while the Government has faced numerous unexpected disasters and crises that impeded implementation, it has also, at times, rejected the deadlines outlined in the Fiscal Plans. Together, this has resulted in delayed implementation on most of the identified structural reforms. For example, the Government has:

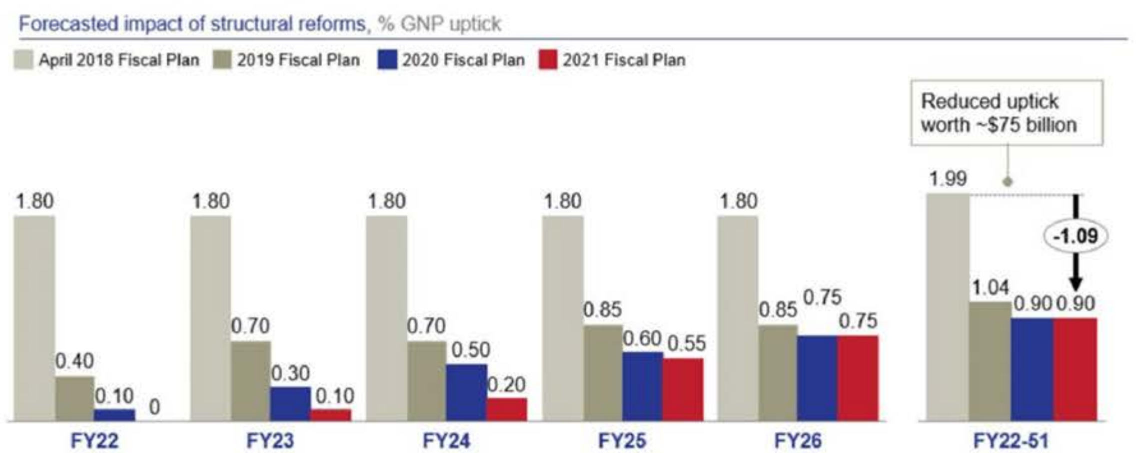
- Implemented the Earned Income Tax Credit (EITC) but without a robust campaign to raise awareness of the new benefit and encourage work in the formal sector;
- Delayed implementation of the complementary Nutrition Assistance Program (NAP) work requirement;
- Made little progress in strengthening the Island's workforce development programs;
- Increased on-Island land freight charges and expanded the regulation across incremental sectors of the economy, rather than deregulating as outlined in this and previous Fiscal Plans;

[41] Education reforms are projected to generate GNP impact after the first kindergarten class to benefit from those reforms completes their first year in higher education or the workforce. As such, the 2021 Fiscal Plan assumes that the implementation of K-12 education reforms in FY2024 will generate GNP uptick starting in FY2037

- Implemented very few of the required ease of doing business reforms with sufficient progress to make the Island substantially more competitive and attractive to investors; and
- Undertook almost no discernible efforts to reform the Island's K-12 education system, a situation that is partially explained but also exacerbated by the COVID-19 pandemic.

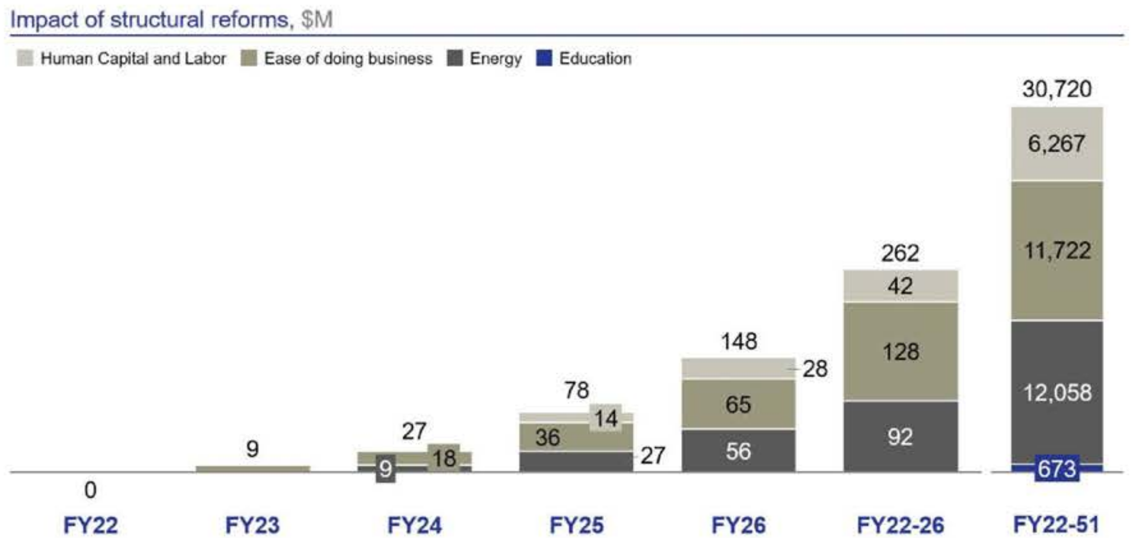
These delays have already diminished the projected economic uptick and revenues associated with structural reforms. Had the structural reforms above been implemented at the pace and scale forecasted in the 2019 Fiscal Plan, the Government would have generated 0.14% in additional GNP uptick, worth another $12 billion in tax revenues by FY2051. This shortfall is even more pronounced relative to the structural reform impact forecasted in the April 2018 Fiscal Plan, whereby the Government would have generated 1.09% in additional GNP uptick, worth another $75 billion in tax revenues by FY2051 (*Exhibit 36*). Not only have the residents of Puerto Rico lost opportunities to gain new skills, experiences and education, but the Island has lost time in attracting incremental investment that would produce jobs and tax revenues to be reinvested again into the people of Puerto Rico.

EXHIBIT 36: COMPARISON OF GNP UPTICK FROM STRUCTURAL REFORMS ACROSS FISCAL PLANS



Given the disruption and hardship brought about by the COVID-19 pandemic, the economic uplift that could be generated through structural reforms matters now more than ever. Urgent and comprehensive Government action is needed to promote economic recovery and opportunity for all local residents. If implemented as specified in this 2021 Fiscal Plan, structural reforms are projected to collectively generate an invaluable 0.75% GNP uptick by FY2026, as well as 0.90% in total GNP growth and more than $30 billion in additional Commonwealth revenues by FY2051. As discussed in *Chapter 6*, these revenues will play a key role in helping the Government address budget shortfalls in the medium- and long-term.

EXHIBIT 37: ESTIMATED IMPACT OF STRUCTURAL REFORMS IN THE 2021 FISCAL PLAN



Chapter 7. Human capital and welfare reform

7.1 Basis for human capital and welfare reforms

Increasing the productivity of Puerto Rico's labor force is essential to creating growth. There are several structural reasons why Puerto Rico lags its potential, and that each must be addressed with tailored actions.

In 2020 Puerto Rico's formal labor force participation rate was on average 40.2%, among the lowest in the world and far below U.S. and Caribbean averages.[42] As the Congressional Budget Office states, labor force participation is an important component of economic growth, since it allows firms to expand employment and increase production, and has an important impact on fiscal and budget trends.[43] Puerto Rico has an opportunity to increase this rate and must aspire to reach at least the rate of the lowest U.S. state (West Virginia, with 55%), to provide its economy with the dynamism it requires to foster growth.[44]

Puerto Rico's low labor force participation is a function of a wide range of factors, including suboptimal eligibility criteria for welfare programs and underperforming human capital development systems, among others. This low level predates the 2017 hurricanes, the 2019-20 earthquakes, the COVID-19 pandemic, and even the economic downturn that began in 2006. According to the World Bank, Puerto Rico's labor force participation rate has ranked in the

42 For comparison, the U.S. has a 61% labor force participation rate. In the Caribbean, the Dominican Republic's labor force participation rate was 62% in 2020. Jamaica and Haiti's rates were even higher (64% and 65%, respectively). See the World Bank Group via International Labor Organization, "Labor force participation rate, total (% of total population ages 15+)," 2020; and Departamento del Trabajo y Recursos Humanos, "Empleo y Desempleo en Puerto Rico," Diciembre 2020

43 Congressional Budget Office, Factors Affecting the Labor Force Participation of People Ages 25 to 54, 2018

44 US Bureau of Labor Statistics, "Employment status of the civilian noninstitutional population 16 years of age and over by region, division, and state, 2019-2020 annual averages," 2020

bottom-20 of more than 200 global economies since at least 1990 and in the bottom-15 since 2009.[45]

Suboptimal eligibility criteria for welfare programs: The current design of welfare programs may disincentivize some residents from pursuing work within the formal economy in order to ensure sufficient nutritional support, housing and healthcare.[46] For instance, current welfare eligibility guidelines sharply phase-out beneficiaries as their income rises, informally taxing workers for seeking work within the formal economy.[47] This phenomenon is particularly pronounced in the case of recipients of public housing assistance: even securing a *part-time* minimum wage job can render a beneficiary ineligible for public housing, potentially forcing some beneficiaries to choose between formal sector work and keeping their homes.[48] Working with the Federal Government to revise eligibility guidelines and other policies that encourage residents to work could help resolve these issues.

Underperforming human capital development systems: In 2012, Puerto Rico participated for the first time in the PISA test (Programme for International Student Assessment) and participated again in 2015. The test, sponsored by the Organization for Economic Cooperation and Development (OECD), was administered by the local Department of Education. It tests the knowledge and skills of students through a uniform metric that was internationally agreed upon. It measures the ability of students aged 15 to use their reading, mathematics, and science knowledge skills to meet real-life challenges. At the international level, Puerto Rico scored, on average, in all three areas below the U.S. and OECD member countries.[49] These relatively low levels of proficiency represent a challenge for Puerto Rican students to graduate from secondary and high-school. Failure to graduate is often correlated with a higher probability of joining the informal labor sector and receiving lower wages.[50]

Worker training programs in Puerto Rico, meanwhile, are managed in a disjointed manner by 15 local workforce boards. Strengthening the Island's education system, as well as the workforce development programs, could mitigate these challenges and help ensure that all local residents are able to participate in the current and future economy. The significant amount of workers displaced due to the pandemic adds another level of urgency to improving workforce development in Puerto Rico.

Unfortunately, the Government has delayed the implementation of many human capital and welfare reforms intended to address these structural challenges, reducing the potential economic uplift to the Island and delaying the opportunity for residents in need of this critical support. Continued Government inaction will further jeopardize the development of Puerto Rico's human capital, the opportunities available to each resident of Puerto Rico for personal development and economic self-sufficiency, and the projected GNP uptick and its associated increases in tax revenues.

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45 See the World Bank Group via International Labor Organization, "Labor force participation rate, total (% of total population ages 15+)," 2020

46 Cordero-Guzmán, "The production and reproduction of poverty in Puerto Rico," in Nazario, ed. *Poverty in Puerto Rico: A Socioeconomic and Demographic Analysis with data from the Puerto Rico Community Survey* (2014), 2016

47 For example, a single parent with two dependents and an annual income below $4,900 was eligible to receive up to $4,229 dollars in annual Nutritional Assistance Program (NAP) benefits in 2016. But, should this parent work 35 hours per week at minimum wage—generating approximately $12,180 in annual earnings, they would become ineligible for NAP benefits. Net of taxes on their earning, full-time formal sector work would increase household income by only $7,002—the equivalent of a $3.86 effective hourly wage. Effective hourly wage income equals income received from formal sector work minus income lost from loss of benefits

48 The U.S. Department of Housing and Urban Development (HUD) sets income limits that determine the eligibility of applicants for assisted housing programs. For U.S. states, the limit to be considered an "extremely low-income family" is determined by HUD using the Department of Health and Human Services (HHS) poverty guidelines. However, an alternative formula is used to define an extremely low-income family for Puerto Rico—30% of the median family income for an area or lower—which results in lower income limits. The current HUD income limits are so low that, in many cases, entering the formal labor market in a part time job at the minimum wage would result in losing eligibility for housing assistance. Thus, the existing income limits directly disincentivize formal employment and hinder economic mobility in Puerto Rico

49 OECD, PISA 2015 Results (Volume I): Excellence and Equity in Education, 2016

50 International Monetary Fund, "Role of Individual Characteristics and Policies in Driving Labor Informality in Vietnam," 2020

To achieve the associated increases to GNP, the Government must implement the following human capital and welfare reforms.

Expand the Earned Income Tax Credit (EITC) and broadly publicize it by:

- Puerto Rico Legislature: Collaborating with Hacienda to design an extended EITC program that complies with what is outlined in the American Rescue Plan (ARP) Act and adjusting regulations accordingly
- Hacienda: Complying with all execution requirements outlined in the ARP Act, including sending timely annual reports to the U.S. Department of the Treasury
- Hacienda: Promoting the EITC in collaboration with the Administration of the Socio-Economic Development of the Family (ADSEF, by its Spanish acronym)
- ADSEF: Designing a multifaceted EITC outreach strategy (including working with community organizations throughout the Island)

Implement a Nutritional Assistance Program (NAP) work/volunteer requirement in the next two years by:

- ADSEF: Creating a work/volunteer requirement compliant with the 2021 Fiscal Plan parameters
- ADSEF: Completing all administrative requirements (e.g., obtaining Federal Government approval) necessary to implement a work/volunteer requirement
- ADSEF: Verifying the eligibility of all adult NAP recipients (including adults without dependent children) for the new work/volunteer requirement

Support high-quality workforce development programs by:

- Department of Economic Development and Commerce (DDEC, by its Spanish acronym): Creating partnerships with private and social sector organizations to strengthen worker training
- DDEC: Conducting regular analyses to understand private sector labor market needs
- DDEC: Integrate the results of the analyses into a holistic strategic plan that states how different workforce development efforts blend in a cohesive way across programs and the 15 local boards
- DDEC & Vivienda: Allocating resources in a data-driven manner
- DDEC: Removing structural barriers to employment (e.g., difficulty in securing transportation and childcare to go to work)

7.2 Expand and broadly publicize the Earned Income Tax Credit (EITC) by leveraging ARP Act federal funding

The ARP Act included permanent additional funds to incentivize Puerto Rico to expand the local EITC program put in place for tax year 2019. The ARP Act provides for up to $600 million to be delivered to Puerto Rico in the form of a reimbursable grant, equivalent to three times the local spending, and indexed for U.S. inflation after the first year. The Government must amend the current EITC program to qualify for the additional federal funding provided in the ARP Act.

The ARP Act establishes that, in order to qualify for this additional funding, Puerto Rico must:

- Increase the percentage of earned income which is allowed as a credit for each group of recipients, in a manner designed to substantially increase labor force participation
- Spend an amount of local funds greater than a statutorily specified base amount of $200 million each year, adjusted for U.S. inflation
- Provide an annual report to the U.S. Department of the Treasury that includes an estimate of the EITC cost for that year and a statement of the actual costs in the preceding year

To fulfill these requirements the Government must amend the local EITC legislation to expand the program's reach and benefits. These amendments must ensure the program complies with the design parameters outlined in the ARP Act. Other than expanding local EITC funding to maximize matching federal funding, the amended legislation should otherwise be consistent with the Revenue Neutrality Principle included in this and previous Fiscal Plans.

Under this amended regulation, the Government must make annual payments to EITC recipients of at least $800 million to ensure receipt of the full amount of the federal grant. Thus, and to enable the permanent positive effect of such additional federal funding on Puerto Rico's residents and economy, the Oversight Board has made available the local resources required to reach the full federal funding available. The 2021 Fiscal Plan includes this incremental funding.

On top of the funding for the tax credit expansion, the ARP Act includes an additional payment of $1.0 million per year to pay for EITC outreach and education through 2025. Previous Fiscal Plans established that to effectively enhance labor force participation and reduce poverty through increased EITC benefits, the Government must more comprehensively promote the program for tax year 2020 and beyond.

US policymakers have implemented and promoted the EITC across mainland states and have seen meaningful gains in formal labor force participation as a result, especially among low-to moderate-income workers.[51] The credit is an effective anti-poverty tool, empowering beneficiaries to defray the cost of education, training, and childcare and support their own self-sufficiency.[52] Since its creation in 1996, the EITC has lifted 6.5 million people out of poverty (half of them children)—more than any other US-based anti-poverty initiative. However, the value of the EITC is greatest when the targeted population is sufficiently knowledgeable of its value to a degree that influences daily decision-making around whether they will enter or stay in the formal economy and whether they will seek employment in Puerto Rico or elsewhere.

7.2.1 EITC design parameters

The Fiscal Plans required the Government to introduce an EITC, which adhered to the following parameters in tax year 2019:

- Individual benefit is dependent on a filer's marital status, number of dependents, and earned income verifiable through an employer-issued tax withholding statement
- Potential benefit increases as earned income rises to a cap, then plateaus, and then decreases at a phase-out income level until it reaches $0
- EITC is coupled with a robust promotional campaign to raise awareness of the benefit among potential claimants and encourage formal labor force participation

In addition to the 2021 Fiscal Plan and ARP Act parameters listed above, when amending the Puerto Rico's EITC legislation, the "EITC must increase the percentage of earned income which is allowed as a credit for each group of individuals with respect to which such percentage is

51 National Bureau of Economic Research, "Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply," 2006

52 To reward formal sector work, the credit reduces claimants' tax obligations and often generates a cash refund. For example, a $1,000 increase in EITC benefit has been tied to a 7.3% increase in employment; see Hoynes and Patel, "How Does EITC Affect Poor Families," 2015.

DRA Ex. 236

separately stated or determined in a manner designed to substantially increase workforce participation."[53]

7.2.2 Current state and path forward

Although the Government has implemented an EITC for tax years 2019 and 2020 which is consistent with the design parameters laid out above, the Government has not coupled the credit with a robust promotional campaign as required by the 2020 Fiscal Plan. Hacienda's EITC outreach efforts have centered primarily around sending circular letters detailing the benefit to tax preparers and establishing a handful of outreach centers across the Island to discuss EITC with potential filers in-person. The operation of centers was cut short with the COVID-19 pandemic lockdown. By relying extensively on an in-person outreach campaign after the tax year was over and failing to establish a more robust promotional strategy (e.g., via digital channels, targeted marketing), the uptake of the program and its intended benefits have been limited.

The efforts from FY2022 and beyond must be to take the necessary actions to incorporate the additional federal funding included in the ARP Act and to design and execute an effective and extensive educational and promotional strategy. The outreach strategy should be evidence based and focused on encouraging non-filers to file. Recent research from Virginia showed that sending mailers and automated calls to those that are eligible was a cost-effective way to increase EITC participation. Additionally, researchers suggest that advertising free tax services, such as the mainland's volunteer income tax assistance (VITA) program, can encourage those that do not file taxes to file.

Hacienda should also consider partnering with private sector tax-prepares to help with the outreach for both the EITC and the CTC.

The Government must accomplish the following actions by their respective deadlines, which will maximize the uptake and benefits of EITC:

53 American Rescue Plan Act of 2021

EXHIBIT 38: REQUIRED IMPLEMENTATION ACTIONS FOR EITC

	Action item	Owner	Deadline
To be completed in FY2022	▪ Monitor EITC filing data to prevent and detect fraud	▪ Hacienda	▪ Ongoing
	▪ Assume responsibility for managing EITC outreach in tax year 2021 and beyond	▪ ADSEF	▪ July 16, 2021
	▪ Design an EITC outreach strategy for tax year 2021 and share with Oversight Board	▪ ADSEF	▪ September 15, 2021
	▪ As established by the ARP Act, increase the percentage of earned income which is allowed as a credit for each group of recipients, in a manner designed to substantially increase labor force participation.	▪ Hacienda	▪ September 15, 2021
	▪ Provide an annual report to the U.S. Department of the Treasury that includes an estimate of the EITC cost for that year and a statement of the actual cost in the preceding year.	▪ Hacienda	▪ September 15, 2021
	▪ Design a recurring assessment of performance to fulfill federal guidelines and reform the EITC platform so can be aligned with federal requirements.	▪ Hacienda	▪ September 15, 2021
	▪ Prepare EITC performance report and share with Oversight Board	▪ Hacienda	▪ September 15, 2021
	▪ Meet with Oversight Board to discuss EITC performance report and tax year 2021 promotional strategy	▪ Hacienda, ADSEF	▪ September 30, 2021
	▪ Launch new EITC promotional campaign	▪ ADSEF	▪ Annually from January 1 2022
	▪ Monitor EITC uptake data in real-time to inform promotional campaign	▪ Hacienda, ADSEF	▪ Ongoing each tax year
	▪ Prepare EITC performance report and share with Oversight Board	▪ Hacienda, ADSEF	▪ Annually from June 1, 2022
	▪ Discuss EITC performance with Oversight Board	▪ Hacienda, ADSEF	▪ Annually from June 15, 2022

A key element of the mechanism through which the EITC impacts growth is its ability to bring informal labor into the formal labor sector and, thus, increase labor force participation. For this to happen, the EITC should be supported by a labor regulatory environment that is supportive of hiring labor in the formal sector.

The Labor Transformation and Flexibility Act, or Act 4-2017, did not go nearly as far as needed to eliminate the most egregious elements of Act 80 of 1976, also known as the Unjust Dismissal Act. However, Act 4-2017 did to some extent ease some restrictions on labor hiring. While some stakeholders have called for the repeal of Act 4-2017, its elimination would likely reestablish onerous provisions related to probationary periods, overtime, and bonuses, which would all make the hiring environment more costly in the formal sector. Its repeal would discourage new hiring and reduce the labor market flexibility, thus limiting the effectiveness of the EITC expansion in promoting labor force participation, economic growth, and the revenues associated with that growth. Therefore, the Government must refrain from repealing Act 4-2017 or enacting new legislation that negatively impacts labor market flexibility.

According to the 2020 World Bank's Doing Business study focused on the impact of labor flexibility on labor formality, there is approximately a linear relation whereby informality is inversely related to the degree of employment flexibility. Clearly then, the elimination of Act 4-2017 or other actions taken that are detrimental to a labor regulatory environment supportive of hiring labor in the formal sector would put at risk the incremental GNP growth and revenues related to the implementation of the EITC.

7.3 Introduce a Nutritional Assistance Program (NAP) work/volunteer requirement

To further support labor force participation, the 2021 Fiscal Plan requires the Government to introduce a work/volunteer requirement for select adult NAP beneficiaries, with full implementation by the beginning of FY2024. NAP is Puerto

Rico's largest Government assistance program and provides nutritional assistance. Unlike mainland Supplemental Nutritional Assistance Program (SNAP) benefits, NAP does not include a work/volunteer requirement. The Federal Government requires that all able-bodied adult beneficiaries without dependent children work, volunteer, or be enrolled in worker training classes for at least 20 hours per week to receive SNAP benefits.[54] When well-designed, including such requirements in similar programs has led to increases in labor force participation.[55] The implementation of a NAP work/volunteer requirement would contribute to increasing labor market participation and to achieve the potential growth anticipated from human capital and welfare reforms.

7.3.1 Specific initiatives and design parameters

The 2021 Fiscal Plan requires the Government to implement a NAP work/volunteer requirement using the following parameters. Specifically, by FY2024 the Government must:

- Apply the requirement year-round to all able-bodied NAP beneficiaries aged 18-59 without dependent children in their household[56]
- Grant all eligible recipients up to a three-month transition period to secure employment, begin volunteering, or enroll in qualified education or training programs ("qualifying activities")
- Mandate that all eligible recipients complete 80 hours of qualifying activities per month
- Ensure NAP eligibility guidelines and benefit calculations effectively promote the labor force participation increase by avoiding drastic phase-out structures that could factually penalize eligible recipients for seeking formal sector work
- Redistribute savings realized through the work/volunteer requirement to boost working eligible recipients' take-home pay through an expansion of the Earned Income Disregard (EID)[57]

7.3.2 Current state and path forward

The 2020 Fiscal Plan provided design parameters and specific milestones for the implementation of a NAP work/volunteer requirement. Unfortunately, as of April 2021, the Government has made no meaningful progress in the implementation of this work/volunteer requirement. The Government has yet to meet any major milestones in the implementation of this reform, including designing the requirement itself.

The Government has recently committed to a 2-year implementation timeline. Reaching full and timely implementation requires urgent and nimble action from the Government.

The Government must accomplish the following action items by their respective deadlines:

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[54] NAP also differs from SNAP in that the former is funded as a block grant and is administered separately from the latter; see Center on Budget and Policy Priorities, "How Does Household Food Assistance in Puerto Rico Compare to the Rest of the United States?" published 2020

[55] For example, when the Federal Government first introduced a work/volunteer requirement for recipients of Temporary Assistance for Needy Families (TANF) benefits in the 1990s, the labor force participation rates of single mothers rose while poverty rates among single mothers and children both fell substantially. See Gitis, "A Menu of Options to Grow the Labor Force," 2017, and Gitis and Arndt, "The 20th Anniversary of Welfare Reform," 2016

[56] As such, all NAP recipients who are under the age of 18, older than the age of 59, have children dependents in their household, or are medically certified as physically or mentally unfit for employment should be excluded from the work/volunteer requirement

[57] The EID allows Government assistance beneficiaries to exclude a portion of income earned through formal sector work from welfare benefit calculations. An increase in the EID can boost an aid recipient's take-home pay by allowing them claim Government benefits that they otherwise would not be eligible for due to an increase in earned income

EXHIBIT 39: REQUIRED IMPLEMENTATION ACTIONS FOR NAP WORK REQUIREMENT

Required implementation action	Owner	Deadline
▪ Design a NAP work/volunteer requirement proposal compliant with parameters above and share with the Oversight Board	▪ ADSEF	▪ August 1, 2021
▪ Meet with the Oversight Board to discuss proposal	▪ ADSEF	▪ August 15, 2021
▪ Submit work/volunteer proposal to FNS[2]	▪ ADSEF	▪ September 15, 2021
▪ Assess operational requirements needed to implement the work/volunteer requirement as proposed	▪ ADSEF	▪ April 1, 2022
▪ Discuss operational requirements with the Oversight Board	▪ ADSEF	▪ April 15, 2022
▪ Receive work/volunteer requirement approval from FNS	▪ ADSEF	▪ November 1, 2022
▪ Publish FNS-approved State Plan aligned with Certified Fiscal Plan parameters	▪ ADSEF	▪ December 15, 2021
▪ Retain a qualified third-party analytical firm acceptable to the Oversight Board to oversee implementation	▪ ADSEF	▪ January 1, 2022
▪ Complete review of all NAP recipients to verify work/volunteer requirement eligibility	▪ ADSEF	▪ June 31, 2022
▪ Implement full-year work/volunteer requirement	▪ ADSEF	▪ July 1, 2023
▪ End three-month transition period for eligible recipients	▪ ADSEF	▪ September 30, 2023
▪ Validate work/volunteer requirement implementation with the Oversight Board	▪ Third party-firm	▪ November 15, 2023
▪ Publish annual report on NAP program and work/volunteer requirement performance	▪ ADSEF	▪ Annually from August 15, 2024

7.4 Create high-quality workforce development programs

To facilitate increased labor force participation, the 2021 Fiscal Plan requires that the Government take steps to more effectively trains residents on the knowledge and skills needed to contribute to the economy. Currently, the Island's worker training programs are managed by local workforce development boards and have a local scale that results in a limited scope to support the development needs of Puerto Rican workers at all stages of their working life cycles. Moreover, the Government has not conducted the analyses or outreach necessary to target the Island's most-pressing talent gaps with a forward-looking view aligned with major labor force trends, like digitization and automation. Inadequate preparation and training have left many local residents without a real opportunity to succeed in the formal labor force and that situation will quickly scale in the years to come. The COVID-19 pandemic has exacerbated these issues, meaning that empowering workers to enter or re-enter the workforce will be especially important in the following months and years.

7.4.1 *Specific initiatives and design parameters*

To strengthen workforce development programs and promote participation in the formal economy, the 2021 Fiscal Plan require that the Government complete several initiatives by the end of FY2022:

- Centralize the administration of Workforce Innovation Opportunity Act (WIOA) funds—the primary vehicle for federal investments in workforce development—under the Department of Economic Development and Commerce (DDEC)
- Promote the signing of Memoranda of Understanding (MOUs) between local worker training boards and Government agencies to strengthen training and defray costs

- Conduct the rigorous data analyses outlined throughout this chapter to leverage workforce development funds in a data-driven manner to reduce labor market talent gaps
- Integrate the results of such analysis in a holistic strategic plan that clearly states how different workforce development efforts and funding blend in a cohesive way to improve human capital development for local residents
- Improve the existing resources allocation and spending tracking process, by making it more standard, transparent and data-driven
- Coordinate an interagency initiative to deeply analyze structural barriers to unemployment and support labor force stakeholders in their efforts to overcome them

7.4.2 Current state and path forward

Unfortunately, the Government's progress in overhauling the Island's worker training systems has been limited to the centralized oversight of WIOA funds under DDEC and some improvements in systems to track program data. Local boards, which administer WIOA-funded programming in their respective regions, continue to offer workforce programs of disparate and inconsistent quality, and many have delayed signing MOUs with Government agencies. Moreover, while DDEC updated its WIOA State Plan in March 2020 and successfully incorporated labor market analysis, further analyses are still required to better understand barriers to employment and identify and propose solutions to existing talent gaps. As such, current initiatives may not be well-attuned to the current and future needs of the Island's employers and its economy, and need to be adjusted.

To develop high-quality worker training programs that empower all residents to reach their fullest potential and enter the labor force, the Government must first implement strategic and administrative enablers throughout FY2021 and FY2022. As such, DDEC must:[58]

- **Conduct analyses to understand labor market needs** by analyzing the Island's labor market to identify talent gaps and making the required diligence on the global future of work trends[59]
- **Share the results of such analysis with local workforce development boards,** so they could better inform their local strategies and programs
- **Design and implement a workforce development coordination strategy** that works as the stepping stone to further collaboration among local workforce development boards and helps materialize scale benefits and knowledge sharing
- **Leverage** existing metrics to evaluate all uses of workforce development funds and its impact and provide actionable feedback to the 15 local workforce development boards
- **Coordinate an interagency effort to deeply analyze the barriers to employment** and identify potential initiatives to overcome them

In turn, these enablers will empower and potentiate the in-field implementation of human capital development programs and tools.

The 2020 Fiscal Plan included a set of initiatives that aimed to support the training, learning, and human capital accumulation needs of local residents at all stages in their working life cycles ("life

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58 U.S Department of Labor Employment and Training Administration, "Best Practices, Partnership Models, and Resources Available for Serving English Language Learners, Immigrants, Refugees, and New Americans," 2017; Center for Law and Social Policy, "WIOA: What Human Service Agencies and Advocates Need to Know," 2015

59 In McAllen, TX, the Broader Workforce Alliance uses a data-driven approach to align workforce development programs to local employer needs. The program has served more than 7,700 individuals, placed 90% of candidates into job opportunities, and has led to a 230% increase in wages among participants. See Project QUEST's web homepage for more information

cycle initiatives") in FY2022 and beyond. However, the implementation of such initiatives would have required the usage of CDBG-DR funding, as well as the repurposing of recurring WIOA funds. Both are federal funds allocated to Puerto Rico under a specific granting process. The recipient Government agencies have exercised their rights to define the priorities to be pursued with those funds and, as their plans have been approved by the Federal Government, are currently in the process of implementing them. While pursuing the same overarching goals, such plans are different in structure and focus to the initiatives outlined in the 2020 Fiscal Plan. Nonetheless, the Oversight Board believes that the aforementioned life-cycle initiatives would significantly benefit Puerto Rico's labor force development if implemented, so it strongly recommends that the Government considers its importance and potential implementation in the near future. Life-cycle initiatives include:

- **Work with PRDE to reform education to enable everyone to graduate high school (see *Chapter 8* and *Section 15.3*)**
- **Prepare high schoolers for success in college and the workforce** by designing a dual enrollment Pilot program that enables high school students to take college-level classes and earn an associate degree alongside their high school diploma, and creating a strategy to expand and leverage vocational education to address talent gaps. [60,61]
- **Empower college students to obtain job skills and research opportunities** by designing employer guidelines and an outreach strategy to expand the number of high-quality co-ops and internships available to college students, and expanding opportunities for college students to conduct Science, Technology, Engineering and Mathematics (STEM) research. [62,63]
- **Create training programs tailored to employer needs** by designing a strategy to create high-quality apprenticeships to address identified current and future talent gaps, and developing a customizable workforce development Pilot program that leverages partnerships

60 The University of Puerto Rico-Mayaguez (UPR-Mayaguez)'s R2DEEP program, the leading dual enrollment initiative in Puerto Rico, has served high-achieving students with an interest in engineering for several years, but space is limited to just several dozen students and tuition can exceed $240 per credit. Several small universities, such as Columbia Central University, also enable students to complete college courses during the school year or summer breaks. In the aftermath of the 2019-20 earthquakes, PRDE also partnered with a handful of universities to offer online college courses to high schoolers from the most-affected areas. Although this initiative approximates a fully-fleshed dual enrollment initiative, the program was established as a temporary solution to education disruptions, focuses on students from affected areas, and does not offer high-achieving students associate degrees. See University of Puerto Rico-Mayaguez, "R2DEEP Requirements and Costs"; El Vocero, "Oportunidad para adelantar estudios universitarios," 2018; and Alicea, "Educacion lanza cursos en linea en conjunto con siete universidades," published 2020

61 A study in California, for example, concluded that students who participated in dual enrollment classes were more likely than their peers to graduate from high school, enroll in four-year colleges, and succeed in college. California's efforts to expand access to dual enrollment programs (e.g. offering free textbooks) have widened participation (one in eight California high schoolers are dual enrolled) and boosted student achievement (90% of participants earned college credit). Once in college, the study concluded that previously dual enrolled students accumulated more college credits and were less likely to take remedial classes than their peers; see Hughes, et. al., "Broadening the Benefits of Dual Enrollment," 2012, and EdSource, "High school students benefit from taking college courses, but access uneven in California," published 2020

62 D'Abate, "Developmental interactions for business students: Do they make a difference?" published 2010

63 UPR's Cooperative Engineering Education Program (referred to as "COOP") has promoted co-ops for more than 40 years, but access to COOP is limited to UPR students and primarily geared toward engineering students (with some exceptions). Similarly, readily -available internships (as determined through a web search for "internships in Puerto Rico" in April 2020) are primarily offered by large multinational firms (e.g. biopharmaceutical companies and financial services firms) are relatively few in number, limiting opportunities to a small cohort of successful applicants. See University of Puerto Rico, "Celebran 40 aniversario del Programa Coop de Ingeniería," 2017, and University of Puerto Rico-Rio Piedras, "Experiencia de Educacion Cooperativa (COOP)"

with local technical colleges to provide qualified employers no-cost tailored training programs. [64,65]

- **Subsidize training programs to support lifelong learning** by designing lifelong learning Pilot program to subsidize adult residents' access to high-quality technical education courses that can address pressing talent gaps through technical reskilling or specialization.[66]

DDEC is best positioned to oversee the development and implementation of these life cycle initiatives. Exercising its role as coordinator, DDEC can perform the analyses, consolidate local knowledge and expertise provided by WIOA boards, and establish the partnerships needed to produce high-quality workforce development programming.[67] Vivienda is also managing a $90 million Workforce Training Program with CDBG-DR funds . [68] DDEC should ensure its initiatives are aligned with the proposed usage of the CDBG-DR funds to avoid duplication of efforts or redundancy.

Revamping workforce development is necessary to ensure the full economic benefits of the Human Capital and Welfare Reform. For example, the EITC and the NAP work requirements would be significantly hampered if workers are unable to be matched with job openings in the formal economy due to lack of training, skills, or other barriers to employment. In other words, lack of progress in improving workforce development would put at risk the incremental GNP growth and revenues attributed to the Human Capital and Welfare Reform by negatively impacting the effectiveness of the EITC and the NAP work requirement in promoting growth.

7.4.3 Analyses to understand labor market needs

To create impactful workforce development programs, the Government must first conduct an analysis of the Island's labor market to identify talent gaps.

The 2021 Fiscal Plan requires the Government to conduct such an analysis, including by creating an inter-agency working group. While DDEC is best positioned to be in charge of the implementation of this initiative, results and impact will benefit from the knowledge and expertise of all Puerto Rican labor-related stakeholders. Thus, DDEC must establish and coordinate a working group dedicated to this interagency effort. Given their respective roles and experience, DOF, ADSEF, DOLHR, PRDE, and Vivienda must be incorporated within such a group.

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64 A study of apprenticeships in 10 mainland states found that apprentices earned more than $240,000 in total lifetime earnings on average than those who did not complete apprenticeships; see Reed, et. al., "An Effective Assessment and Cost-Benefit analysis of Registered Apprenticeship in 10 States," 2012. For additional findings on the positive benefits of apprentices for employers, see Lerman, et.al., "The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective," 2009; Lerman, "Apprenticeship in the United states: Patterns of Governance and Recent Developments," in Schlogl, ed. Situated Competence Development Through Innovative Apprenticeships, 2008. Regarding returns on investment, a study of more than 1,000 Canadian employers found that companies derived $1.47 in benefits for every dollar invested in apprenticeship training; see Canadian Apprenticeship Forum, "It pays to hire an apprentice: Calculating the return on training and investment for skilled trades employers in Canada," published 2009

65 In 2018, DDEC and DOLHR launched an initiative to develop construction, tourism, aerospace, agriculture, and advanced manufacturing apprenticeships. Since then, the effort has only successfully engaged a handful employers (primarily aerospace firms) to create programs. Despite their importance, the initiative has not created any construction- or tourism-focused apprenticeships; see Action Plan Amendment Three as certified by the Oversight Board, 2020, and El Vocero, "Arranca Programa de Formacion para el Empleo del DDEC," published 2018

66 Reskilling and specialization can be achieved through enrollment in structured career transition programs managed by local colleges and universities or through pre-approved technical education courses (including online courses); for more information, see SkillsFuture, "What is it?"

67 WIOA funds are intended to support initiatives to train youth, adult, and dislocated workers as well as apprenticeships. Given their knowledge of local and regional needs, DDEC should also leverage the expertise of local WIOA boards, which are responsible for the administration of WIOA funds and workforce programming in their respective regions, and non-governmental workforce development organizations where appropriate

68 Per the Action Plan, the Workforce Training Program has the objective of promoting workforce development in the construction, hospitality and tourism, healthcare, technology, and manufacturing industries

In the first stage, the working group must identify the current and potential talent needs of employers that will shape their demand for workers. In this stage, DDEC must determine current and future talent demands of employers on the Island; current skill and knowledge gaps among existing workers (informed by employers); and the availability, cost, and quality of the Island's talent supply. It should also draw on relevant benchmarks and best practices, as well as major global labor market trends to inform future talent needs.

Some aspects of this first stage are already present in the 2020 WIOA State Plan. However, DDEC must ensure the full analysis is complete and available for all relevant stakeholders in order to appropriately inform workforce development efforts.

In the second stage, the working group must discern the available resources and trends that will shape the supply of talent to meet employers' needs. As such, DDEC must identify the resources currently available to train workers to meet employer needs, new resources that workers will leverage to develop relevant skillsets, the amount of training currently offered through employers, and potential private and social sector partners that can help in training or re-skilling workers.

Enhancing opportunities for local residents depends on the working group's ability to transform its learnings and conclusions into effective workforce development tools. So in a third and final stage, the working group must issue actionable recommendations at the local and Island-wide levels, in the form of an integrated strategic plan that would outline the tactical roadmap to build a more robust offer of training programs, initiatives, and efforts.

Additionally, the creation and publication of such plan will allow the working group to have a holistic view of the current situation and more effectively plan for the usage of all workforce development funding currently available in the Island, namely the recurring WIOA funding, the resources received from CDBG-DR, and the local funds included in the this document (see *Section 12.2*).

To make certain this is accomplished, the Government must complete the following action items by their respective deadlines:

EXHIBIT 40: REQUIRED IMPLEMENTATION ACTIONS FOR HIGH-QUALITY WORKFORCE DEVELOPMENT PROGRAMS COORDINATION STRATEGY

	Action item	Owner	Deadline
To be completed in FY2021	▪ Share with Oversight Board report on progress of CDBG-DR Workforce Training Program	▪ Vivienda	▪ Quarterly starting on May 30, 2021
To be completed in FY2022	▪ Publish a strategic plan that states how different workforce development efforts and funding (i.e., WIOA, CDBG-DR, 21st Century Technical and Business Education fund) blend in a cohesive way to improve human capital development	▪ DDEC, DOLHR, Vivienda	▪ December 31, 2021
	▪ Share strategic plan and coordination strategy with 15 local boards	▪ DDEC	▪ March 30, 2022
	▪ Re-conduct labor market analyses and update strategic plan	▪ DDEC	▪ Quadrennially from December 31, 2023

7.4.4 Allocate resources in a data-driven manner

To maximize the number of workers that can benefit from redesigned workforce development programs, the Government must analyze data to confirm that workforce funds are used transparently, efficiently, and effectively. Routine and comprehensive internal data analysis will enable DDEC to provide appropriate feedback and pertinent recommendations on the uses of

workforce development funding when necessary, to boost impact improve outcomes in future years. Potential metrics to analyze include:

- Employment and worker self-sufficiency (e.g., employed participant retention rates, average duration of first employment upon program completion, wages over time)
- Program quality (e.g., participant attendance rates, employer satisfaction rates with participants' training, percentage of corporate partners who hire participants)
- Workforce attraction (e.g., percentage of unemployed workers who inquire about a program, percentage of inquiring workers who participate in a program)

Some progress has been made on this front. As detailed in the 2020 WIOA State Plan, a new Participant Record Information System (PRIS) will now include common registration and case management across WIOA programs. Puerto Rico also signed the State Wage Interchange System (SWIS) Agreement with the Department of Labor Employment and Training Administration, which incorporates all six WIOA core programs to exchange interstate quarterly wage records. Since January 1, 2020, all Queries for Wage Data for all applicable programs are processed through the SWIS Clearinghouse. Going forward, DDEC must ensure these and additional metrics are continuously analyzed and leveraged to guide workforce development strategies. DDEC must also ensure systems provide KPIs and benchmark targets and enable a centralized source of information for case management and program evaluation.

To support the efficient and transparent use of WIOA funds, DDEC must promote a common approach to spending evaluation and reporting. As such, DDEC must:

- Standardize and make transparent all monitoring processes, metrics, and targets, as well as compliance and promotional efforts results, to create more effective programs
- Ensure that regional boards sign MOUs with Government agencies to strengthen training programs while defraying programming costs, facilitating the redeployment of workforce development funds to support other high-performing initiatives
- Leverage data on performance against the aforementioned metrics to set regional boards' annual budgets based on prior-year performance to promote efficient and effective uses of workforce development funds at the local level

The Oversight Board considers that local residents would benefit from a structure of local workforce development boards grouped into larger regional entities, which would enable enhanced results driven by well-performing boards taking over underperforming peers, as well as additional benefits from economies of scale. The Oversight Board strongly recommends that DDEC and WIOA consider the system's reorganization into a less fragmented structure.

To ensure that workforce development funds are used in a data-driven manner, the Government must accomplish the following actions by their respective deadlines:

EXHIBIT 41: REQUIRED IMPLEMENTATION ACTIONS FOR DATA-DRIVEN RESOURCE ALLOCATIONS

	Action item	Owner	Deadline
To be completed in FY2022	Standardize and make transparent all monitoring processes, metrics, and targets, as well as compliance and promotion efforts results, to create more effective programs	DDEC	July 30, 2021
	Begin tracking performance of all workforce development initiatives relative to KPIs and provide actionable feedback to the 15 local workforce development boards in reports available online to the general public	DDEC	Biannually from December 1, 2021

7.4.5 Understand structural barriers to employment and support efforts to eliminate them

Another important objective the Government must pursue is to ensure that new entrants into the formal economy can retain employment. Transportation, childcare, and mental health-related issues, for example, can temporarily inhibit an otherwise willing worker from pursuing employment in the formal economy. Mainland jurisdictions have used several solutions, including job counseling, paid transitional employment, and two-generation strategies that educate parents alongside their children, to tackle many of these same barriers.[69] With 57.1% of Puerto Rican children living in poverty and years of traumatic natural disasters and health crises, the Government's efforts should initially prioritize reducing employment barriers for working parents, low-income families, and persons affected by mental illness.[70]

DDEC is well positioned to help local workforce development boards and other relevant stakeholders better understand these barriers, their causes, and the size of their effects, by performing pertinent research and coordinating working groups to further study this topic.

Having a comprehensive view of these issues would allow labor-related public and social sector entities to better inform their programs' design, and could place Puerto Rico in the correct pattern to tackle structural barriers to employment and labor force participation.

To support the system's understanding of structural barriers to employment, the Government must accomplish the following actions by their respective deadlines:

EXHIBIT 42: REQUIRED IMPLEMENTATION ACTIONS FOR EMPLOYMENT BARRIER REDUCTION

	Action item	Owner	Deadline
To be completed in FY2021	▪ Create a working group comprised of DOF, ADSEF, DOLHR, PRDE, Vivienda, and DDEC tasked with identifying the most significant barriers to employment on the island, such as access to transportation or childcare	▪ DDEC	▪ June 30, 2021
To be completed in FY2022	▪ Publish a report with actionable items and recommendations to reduce barriers to employment	▪ Working group	▪ November 15, 2021

7.4.6 Further initiatives on human capital development to be pursued in the mid-term

Given the challenges involved in restoring long-term growth and development for Puerto Rico, the previous initiatives should be understood as a starting point. Much more needs to be done.

- In collaboration with Estudios Técnicos, Inc., the Oversight Board published a report Human Capital Development in Puerto Rico: An Overview (2020) which includes additional initiatives that the Government may adopt, including the creation of a Human Capital Committee to create a Human Capital Policy for Puerto Rico. The Committee should bring together all relevant stakeholders from the various sectors that are contributors to strengthening Puerto Rico's human capital.

69 For example, a New York's Center for Employment Opportunities offers formerly-incarcerated persons job training, paid transitional employment, and career counseling; post-enrollment, participants are 48% likelier than non-participants to gain full-time employment and 19% less like to be re-convicted or -arrested for a felony; see Center for Employment Opportunities, "Research Results," and Bloom, et. al., "Four Strategies to Overcome Barriers to Employment: An Introduction to the Enhanced services for the Hard-to-Employ Demonstration and Evaluation Project," published 2007

70 Rosa-Rodriguez, "State of mental health services for children in Puerto Rico: Mental heal services for Puerto Rico's children are not a luxury but a necessity," published 2019

- Recent research assigns a central role in human capital improvement to additional factors such as health and skills accumulated outside of the schooling system. The population of Puerto Rico must have access to healthcare services in order to boost productivity in the long term. For example, Puerto Rico faces high rates of chronic health conditions. Human capital initiatives going forward should incorporate these factors. An effective system of statistics and information is needed to support human capital improvement initiatives.
- Puerto Rico's statistical system needs to be refurbished in order to provide information that is useful for research and policy making. As part of this effort, the 2021 Fiscal Plan recommends reincorporating Puerto Rico in the PISA tests and other international metrics, which would help to know where the Island stands in relation to other countries or states' proficiency in basic educational abilities and track its progress towards meeting goals.

With the objective of boosting formal labor participation, DDEC and the Department of Labor and Human Resources should explore creating a program of incubators for the formalization of existing informal businesses, as has been suggested by a study published by the National Bureau of Economic Research on the case of Puerto Rico. This study also suggested that work activities common to the informal labor market such as construction and reparation work could be organized through cooperatives of community workers or through community organizations.[71]

Puerto Rico's competitive advantage when competing with similar localities will depend, possibly more than on anything else, on the quality of its human capital. The necessary reforms to improve knowledge and skills, and to reduce barriers to employment, will spur more investment from within and abroad, and will help workers find meaningful and well-paid jobs that will in turn contribute to a faster economic growth in the Island.

Chapter 8. K-12 education reform

A high-quality education is the cornerstone for creating economic opportunities for the residents of Puerto Rico—especially after years of devastating natural disasters and the unprecedented impacts of the COVID-19 crisis. The entire system of education has been disrupted, and the Department of Education (PRDE) – along with many education systems across the U.S. – was not prepared to adapt quickly enough. These challenges were exacerbated in Puerto Rico given the destabilizing impact of recent natural disasters as well as high leadership turnover resulting from the election year. Despite these obstacles, PRDE has attempted to implement the 2020 Fiscal Plan initiatives, but many of these initiatives saw limited progress in part due to COVID-19 pandemic.

Comprehensive K-12 education reforms will help address the academic and social-emotional impacts of the last year while simultaneously empowering every Puerto Rican to develop the skillsets needed to achieve economic self-sufficiency and join the formal workforce. Together with *Section 15.3* of the 2021 Fiscal Plan, which outlines the necessary management improvements and operational efficiencies that the Department of Education (PRDE) must pursue, this chapter provides a transformation roadmap that will transform K-12 student outcomes on the Island. Indeed, studies show that mainland workers that attain fluency in both English and Spanish earn $2,800 more per year than their monolingual peers, while Puerto Rican workers (ages 65 or below) with a high school diploma earn three times as much as residents who lack one.[72] Improvements in education will bring prosperity and growth to individuals and the Island as a whole.

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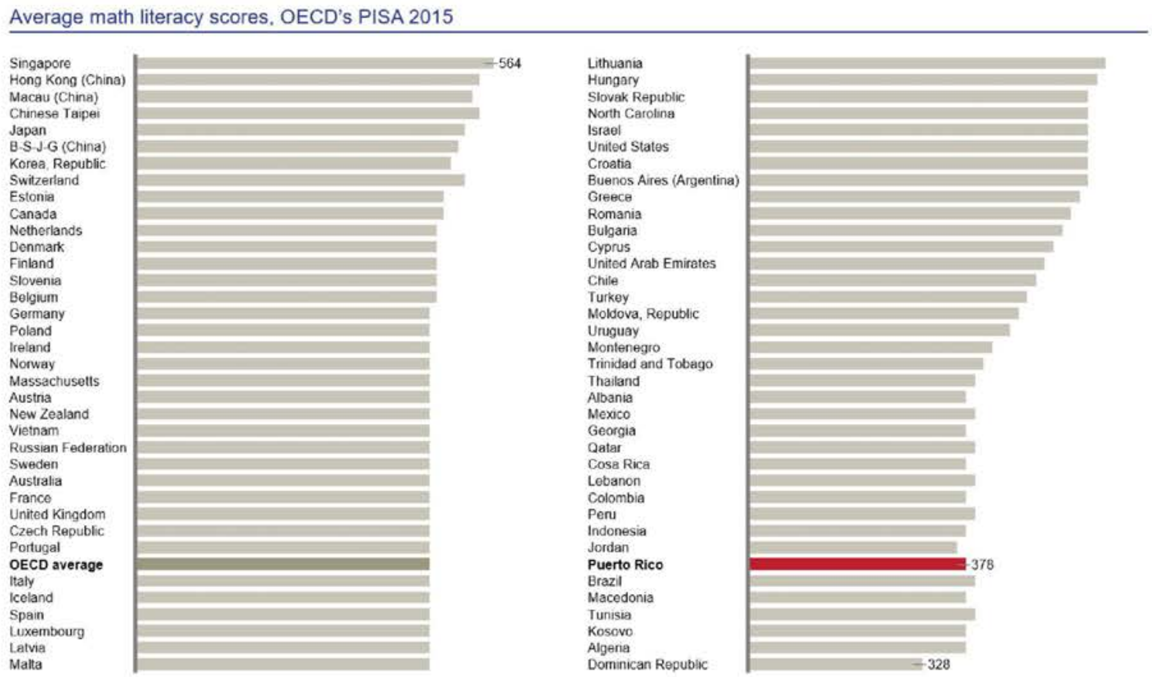
71 Enchautegui, M., & Freeman, R. B. (2005). Why don't more Puerto Rican men work? The rich uncle (Sam) hypothesis (No. w11751). National Bureau of Economic Research.
72 Ruggles, et. al., IPUMS USA: Version 9.0 [Puerto Rico Community Survey], 2015; $17,348 vs $5,731

Even before the COVID-19 pandemic, PRDE was struggling to provide a high-quality educational experience meeting the developmental needs of all children, preparing them for success in higher education or the workforce. Puerto Rico ranked 67th out of 73 education systems in average scores of 15-year-old students on the Program for International Student Assessment (PISA) mathematics literacy scale in 2015, with an average score of only 378 compared to the overall average of 490 (see *Exhibit 43*).[73] The Island performed slightly better in reading (59th) and science (65th) literacies but was still well below the average in both subjects (83 and 90 points below, respectively). Moreover, school underperformance persists on the Island, with just 45% of students proficient in Spanish, 39% of students proficient in English, and 30% of students proficient in mathematics in 2019. There are particularly sharp drops in English proficiency between the third and fourth grades, and similarly sharp drops in mathematics and Spanish proficiency between the fifth and sixth grades.[74] Thirty-three percent of current third graders are at-risk of not graduating high school, and PRDE has delayed the introduction of evidence-based practices that are important to properly serving Special Education students (who comprise a greater share of the student population—32%— than in any other U.S. jurisdiction).[75,76]

EXHIBIT 43: AVERAGE MATH LITERACY SCORES, ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD)'S PROGRAM FOR INTERNATIONAL STUDENT ASSESSMENT (PISA), 2015



1 OECD Program for International Student Assessment (PISA) test scores, 2015

The COVID-19 pandemic is likely to worsen student outcomes given research showing a disproportionately negative impact on low-income (~80% of PRDE student population in 2021)

73 OECD Program for International Student Assessment (PISA) test scores, published 2015

74 English: 55.4% in third grade to 39.0% in fourth; Spanish: 62.3% in third to 48.6% in fourth; mathematics: 45.3% in fifth to 11.5% in sixth; see Puerto Rico Department of Education, "Resultados META-PR 2018-2019," published 2019

75 This calculation is based on recent PRDE performance data and accounts for the fact that students who do not read at grade level by third grade are four times likelier to not graduate high school; see Puerto Rico Department of Education, "Reporte de Desercion Escolar 2018-19," 2019 and Hernandez, "Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation," published 2012

76 An average of 13% of students are characterized as special education students on the mainland; see Puerto Rico Department of Education, "Matricula Activa," 2020; U.S. Department of Education, National Center for Education Statistics, published 2017

and Special Education students.[77,78] Furthermore, surveys of K-12 students in the U.S. found that ~40% of students have been putting less effort into their work compared to before the pandemic, and ~80% of students indicate that feeling depressed, stressed, or anxious makes it hard to do their best in school.[79] Between 2017 and 2020, students in Puerto Rico were estimated to have missed up to ~160 school days.[80] To most effectively serve students and address learning gaps, the Governor of Puerto Rico and PRDE decided to begin reopening schools in line with national recommendations. As of April 2021, the Department had welcomed back students in kindergarten through third grade, and twelfth grade, as well as Special Education students at ~120 schools. To continue to safely re-open schools in fall 2021, PRDE needs clear, robust plans, including contingency plans that would allow for a speedy transition to a remote or hybrid environment as needed.

Although natural disasters and the COVID-19 pandemic have wrought substantial destruction and turmoil, relief funds offer PRDE an unprecedented opportunity to reshape Puerto Rico's public schools for the better. In the 2020 Fiscal Plan, the Oversight Board allocated $124 million in Commonwealth funds to purchase tablets, software, and training services necessary to support distance learning for all PRDE students and teachers as part of the Emergency Measures Support Package in response to the COVID-19 emergency. Additionally, as discussed in *Section 15.3*, PRDE has been allocated a significant amount (~$4.6 billion) of one-time Elementary and Secondary School Emergency Relief (ESSER) funding through the CARES, CRRSA, and ARP Acts, which can be used to support recovery and response efforts related to the COVID-19 pandemic. The Oversight Board is analyzing the formal guidance released by the U.S. Department of Education on how to calculate the Maintenance of Effort (MOE) requirements associated with this fund, and will determine what, if any, implications the MOE requirements have on the Commonwealth, UPR, and PRDE funding provided in the 2021 Fiscal Plan and FY2022 Commonwealth Budget. Furthermore, PRDE has hundreds of millions of federal carryover funds from prior year grant allocations and received an additional $2.3 billion in FEMA funding that can be used to improve school building infrastructure damaged by Hurricane María.

This fiscal situation brings meaningful opportunity for students in Puerto Rico, but also significant management and logistical complexity. As such, PRDE must create a multi-year financial plan – as outlined in detail in *Section 15.3* – to strategically allocate those funds in high impact, evidence-based, and equitable ways aligned to its strategic goals. Devising an effective financial plan starts with assessing student learning deficits in order to pinpoint the most acute needs and invest in impactful interventions through a learning acceleration plan. As the Department works to align financial resources to its strategic priorities, it also needs the right people with the right qualifications to carry out these priorities. To this end, PRDE must address the capacity constraints exacerbated by the increasing demands of the COVID-19 pandemic and PRDE leadership turnover from the election. Magnifying these challenges, outdated systems, inefficient processes, and poor data management often impede the ability of staff at all levels to carry out their normal daily functions, never mind respond to disruptions strategically or with agility.

The effects of the events of the last year have reverberated across the Island and the whole of the Department of Education – putting PRDE in a constantly reactive position. To afford all local residents an equal opportunity to develop the knowledge and skillsets needed to contribute to the Puerto Rican economy and to address the urgent needs of students resulting from the COVID-19 pandemic, PRDE must continue implementing education structural reforms in FY2022. As described in its State Plan, PRDE aimed to achieve 73% student proficiency in mathematics, 77% proficiency in English, and 80% proficiency in Spanish across all grade levels by the 2021-22 school year, but the Department remains far from these goals.

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77 Puerto Rico Department of Education, "Matricula Activa," 2021

78 NWEA, "Learning during COVID-19: Initial findings on students' reading and math achievement and growth", November 2020

79 The Evidence Project at CRPE, "The kids are (really) not alright: A synthesis of COVID-19 student surveys", March 2021

80 Bellwether Education Partners, *Puerto Rican students during the COVID-19 pandemic: Data update, March 2021*

Nonetheless, the future of Puerto Rico relies on PRDE delivering this level of improvement. To achieve these targets—and ensure that PRDE makes a concerted effort to offer the children of Puerto Rico the high-quality education that they deserve—comprehensive reforms must begin immediately, particularly in areas such as English Language Learning (ELL), K-5 literacy, and STEM instruction.

To maximize the likelihood of success, education reforms should build on the improvement areas PRDE identified in 2017: increased student achievement (as measured by META-PR scores and graduation rates), stronger professional development for directors and teachers, and additional effort to support the developmental needs of the whole child. [81] As such, the Government's overhaul must:

1. **Implement PRDE's 2022-27 strategic plan to guide reforms**
2. **Launch evidence-based curriculum reforms**
3. **Create a post-COVID-19 back-to-school plan and learning acceleration strategy**
4. **Improve professional development opportunities for all staff**
5. **Make targeted investments to boost family engagement**
6. **Systematically collect, manage, and leverage data for better decision-making**

These reforms must collectively aim to strengthen system-wide accountability among educators and administrators; facilitate data-driven leadership at the central, regional, and school level; and increase PRDE's responsiveness to the needs of the whole child and the broader community on the Island. Moreover, the Oversight Board welcomes PRDE, its non-Government partners, and other Government agencies to design and propose further innovative reforms to strengthen PRDE schools and mitigate the ongoing challenges of the COVID-19 pandemic and its residual impacts.

8.1 Implement a strategic plan to guide reforms

Successful education reforms require a strategic and operational foundation to succeed. Before PRDE can transform the Island's schools, it should understand how student needs (e.g., academics challenges, curricular resources, social-emotional support) vary across schools, especially in light of the impacts of the COVID-19 pandemic, and centralize its strategic efforts to ensure consistent implementation.

8.1.1 Specific initiatives and design parameters

The 2021 Fiscal Plan requires that PRDE execute the following actions to establish a foundation for education reforms:

- **Create a Chief Operating Officer function**
- **Implement the 2022-2027 strategic plan** to achieve defined KPIs, improvement targets, and milestones; codify an operational model that clearly delineates central, regional, and local administrators' responsibilities around the implementation of education reforms; and realize strategies for central, regional, and local administrators to implement differentiated interventions based on individual needs of students.[82]

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[81] The fourth improvement area—right-sizing schools to optimize resources, improve responsiveness, and strengthen regional and local management—is addressed in *Section 15.3.2*

[83] Unlike traditional learning environments (which evaluate learning at a unit's end), PBL emphasizes ongoing learning and evidence-based argumentation. Studies spanning more than 40 years have linked PBL to stronger long-term information retention, skill development, and student and teacher satisfaction than traditional educational approaches; see Strobel, et. al., "When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms," published 2009

8.1.2 *Current state and path forward*

In April 2021, PRDE defined improvement goals and strategies while developing its 2022-27 strategic plan. However, PRDE must also still create a Chief Operating Officer (COO) function to lead PRDE operations and oversee the day-to-day implementation of reforms. To complement these efforts, the Department must also strengthen financial management capabilities within the existing CFO's office and create a roadmap to guide spending at all levels, as outlined in *Section 15.3*.

To establish the strong foundation required to implement education reforms, PRDE's Central Office must accomplish the following actions by their respective deadlines. Implementation of the PRDE efficiency measures stipulated in *Section 15.3*, which will promote the more effective management and use of Departmental resources, will further strengthen education reform efforts' likelihood of success.

EXHIBIT 44: REQUIRED IMPLEMENTATION ACTIONS TO ESTABLISH ENABLERS FOR EDUCATION REFORM

	Action item	Owner	Deadline
To be completed in FY2021	•Launch search for a COO	•PRDE	•July 1, 2020
	•Segment all PRDE schools	•PRDE	•Start of 2020-2021 school year
	•Define KPIs, targets, and milestones for each achievement tier to evaluate the impact of education reforms and share them with the Oversight Board	•PRDE	•September 30, 2020
	•Discuss KPIs, targets, and milestones with the Oversight Board	•PRDE	•October 15, 2020
	•Discuss progress made in the development of a preliminary 2022-27 strategic plan with the Oversight Board (check-in #1)	•PRDE	•November 30, 2020
	•Identify a COO	•PRDE	•December 15, 2020
	•Discuss progress made in the development of a preliminary 2022-27 strategic plan with the Oversight Board (check-in #2)	•PRDE	•January 15, 2021
	•Share a preliminary 2022-27 strategic plan with (1) professional development, (2) curricular and distance learning, (3) family engagement, (4) data-driven, and (5) other viable reforms for each achievement tier with the Oversight Board (check-in #3)	•PRDE	•February 15, 2021
	•Discuss preliminary strategic plan draft and projected costs with Oversight Board	•PRDE	•February 28. 2021
	•Finalize strategic plan and share with Oversight Board	•PRDE	•March 31, 2021
	•Discuss finalized strategic plan and projected costs with Oversight Board	•PRDE	•April 15, 2021
To be completed in FY2022 and beyond	•Implement 2022-27 strategic plan	•PRDE	•July 1, 2021
	•Publish annual reform implementation progress report	•PRDE	•Annually from June 30, 2022
	•Discuss annual implementation progress report with Oversight Board	•PRDE	•Annually from August 15, 2022

1 In particular, PRDE should focus on (1) strengthening budget oversight and forecasting capabilities, (2) integrating ERP and HRIS systems to improve financial and personnel management capabilities, (3) professionalizing its procurement office to reduce fraud and waste and improve category purchasing strategies, (4) identifying top-10 contracts to analyze to identify and renegotiate to attain cost savings, and (5) strengthening overall financial controls to maximize operational efficiencies.

8.2 Launch evidence-based curriculum reforms

PRDE must overhaul its curriculum and leverage supplemental learning opportunities, especially digital aids, to achieve significant increases in student proficiency. PRDE's curriculum is in need of end-to-end standardization around evidence-based best practices while also preserving the flexibility for educators to meet the diverse learning needs of all students and address requirements within Special Education students' IEPs. Additionally, PRDE's curriculum must integrate digital aids that facilitate the high-quality education of Puerto Rico's children and guard against schooling disruptions. Finally, to best meet

the needs of PRDE students, the new curriculum and materials should incorporate leading practices in social-emotional learning.

8.2.1 Specific initiatives and design parameters

The 2021 Fiscal Plan requires that PRDE execute the following actions to strengthen its curriculum:

- **Assess the impact of current curricular spend on student performance** to direct resources to evidence-based curriculum and instructional strategies to benefit the greatest number of General and Special Education students, while still providing all additional support required by Special Education students' Individualized Education Plans (IEPs). PRDE should design a new curriculum to address the areas of most-significant academic and developmental (i.e., social-emotional) need across the PRDE system.
- **Implement innovative learning strategies** to empower students through curricular innovations such as project-based learning (PBL). These approaches aim to build foundational problem-solving skills (e.g., synthesis, analysis) through a "real world" application conducive to long-term information retention, and empower all educators—through the use of formative assessments (e.g., checks for understanding, weekly quizzes, student-teacher feedback sessions)—to boost student achievement, quality of work, information retention, and attendance.[83,84] Such strategies should also embed social-emotional skill building within the school day.
- **Bolster learning strategies with proven digital aids** to equip educators with learning resources (e.g., lessons, assessments) and other curricular materials tailored to each student's developmental needs, to boost student performance and instruction.[85,86] Digital resources also allow for more curricular choice, differentiation in learning style, and remediation/extension opportunities at lower cost and larger scale.

8.2.2 Current state and path forward

PRDE's current curriculum does not adequately support the needs of all General and Special Education students, and many teachers lack the pedagogical strategies needed to maximize student outcomes with current curricular resources. The Department also lacks a sense for how its curricular spend translates into student impact, preventing PRDE from reallocating resources to maximize performance. Likewise, PRDE has not yet implemented innovative teaching strategies—such as project-based learning—across all schools, further inhibiting student performance.

Federal and Commonwealth funding has eliminated major barriers to digital education within and outside of PRDE schools. Furthermore, all schools have wired internet access and will have

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83 Unlike traditional learning environments (which evaluate learning at a unit's end), PBL emphasizes ongoing learning and evidence-based argumentation. Studies spanning more than 40 years have linked PBL to stronger long-term information retention, skill development, and student and teacher satisfaction than traditional educational approaches; see Strobel, et. al., "When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms," published 2009

84 Formative assessments have been linked to gains in student achievement, with especially strong results among previously underperforming learners, as well as higher quality student work, better student attendance, and increased retention. See Bakula, "The Benefits of Formative Assessments for Teaching and Learning," 2010, and Hanover Research, "The Impact of Formative Assessment and Learning Intentions on Student Achievement," published 2014

85 Miami-Dade County Public Schools (FL) piloted Voxy, an English-learning software with adaptive learning capabilities, to strengthen ESL instruction. Students with one semester of exposure to the program improved an average of 15% on the Language Proficiency Assessment, while their non-Voxy peers only averaged a 3.5% improvement

86 For example, in Uruguay, a nationwide initiative used laptops that had previously been distributed to elementary schoolers to improve ELL instruction, driving meaningful improvements in participants' reading and writing scores

wireless internet by the end of 2021, but PRDE has not yet identified beneficial digital aids (e.g., supplemental digital resources) to enhance student performance inside schools.[87]

While the Oversight Board encourages the Department to select interventions that align most-closely with its 2022-27 strategic plan, PRDE must accomplish the action items outlined in *Exhibit 45* by their respective deadlines.

EXHIBIT 45: REQUIRED IMPLEMENTATION ACTIONS TO STRENGTHEN CURRICULUM

	Action item	Owner	Deadline
To be completed in FY2021	• PRDE to launch a school competition for education innovation and create an application process for school leaders that have ideas to positively impact student achievement through innovative programs or practices	• PRDE	• December 2020
	• Design curricular reform to complement distance learning strategy and leverage (1) student performance assessments, (2) innovative learning strategies, and (3) proven digital aids, and (4) other viable interventions to strengthen PRDE's curriculum at each achievement tier as part of the preliminary strategic plan	• PRDE	• February 15, 2021
	• Finalize updates to curricular reforms as part of the updated strategic plan	• PRDE	• March 15, 2021
To be completed in FY2022	• Update curricular reform section within annual reform implementation progress report	• PRDE	• Annually from July 31, 2022

8.3 Create a post-COVID-19 back-to-school plan and stand up distance learning capabilities

While implementing evidence-based reforms is an important near-term goal, the most immediate priority for PRDE must be to continue to refine plans for students in the 2021-2022 school year in response to the impact of the COVID-19 pandemic. This planning process must include a comprehensive learning acceleration strategy, including ample social-emotional support; a distance/ hybrid learning strategy; and a path to reopen as many schools as safely as possible, which is a requirement for PRDE to receive the ESSER funds allocated to Puerto Rico under the ARP Act. It is critical for PRDE to begin this work immediately so that the strategy can be implemented in advance of the new school year, though such innovations will also support instruction in future years.

8.3.1 Specific initiatives and design parameters

- **Back-to-school planning** must combine public health guidance, PRDE management expertise, stakeholder input, and research on national and international learning acceleration approaches in order to develop the right plan for Puerto Rico. Nearly every school system in the world is currently navigating this exact challenge, and Puerto Rico can learn from the successes and failures of others. In addition to creating the right plan, PRDE will also have to effectively implement it. The impact of the COVID-19 pandemic on top of the 2017 hurricanes and 2020 earthquakes will require new safety measures on top of accelerated learning strategies and greater support for students and educators.
- **Social-emotional support** will help ensure students have the mental and emotional capacity to focus on their studies. Several months into the COVID-19 pandemic, half of U.S. K-12 students indicated a lack of focus on their learning, and 59% stated an inability to

87 Wireless initiatives have been funded through a combination of federal E-Rate and RESTART funds. The Federal Communications Commission's E-Rate program offers eligible schools and libraries discounted telecommunications products and services, including internet connections, on the basis of local poverty levels; see Federal Communications Commission, "E-Rate: Universal Service Program for Schools and Libraries," published 2020

motivate themselves to do schoolwork in a virtual setting.[88] PRDE must address this gap by investing in high-quality social-emotional support, especially given that 46% of K-12 students cite depression, stress, and/or anxiety as an obstacle to learning due to the crisis.[89] These challenges are unlikely to disappear upon return to in-person classes due to the combined effects of a public health crisis, social isolation, and economic issues for many families. Previous research has shown that in addition to improving core social competencies, high-quality social-emotional learning (SEL) programming can improve students' academic performance by 11%.[90]

- **Innovative, proven educational interventions to accelerate learning** will target students' highest academic needs. These intervention strategies will be most effective if PRDE leverages data to differentiate support. PRDE can learn from the practices of schools such as New York City Department of Education's transfer schools, English Language Learners and International Support (ELLIS) Preparatory Academy (New York), and Rocketship Public Schools (Bay Area, Milwaukee, Nashville, and Washington D.C.), which have effectively supported students who are behind their grade level before and after the COVID-19 pandemic. Several strategies common to these schools include extensive academic and social-emotional diagnostic assessments, cross-content collaboration, flexible scheduling, peer support and collaboration, and deep community partnerships.[91]

- **Actively monitoring student attendance** is a basic, yet critical function of the education system; however, it is an area in which PRDE has struggled. Data from January 2021 indicates that only about one-third of teachers had entered attendance data for 95% or more of their class periods in PRDE's Student Information System by the end of the month.[92] According to PRDE's own student retention policy, teachers are responsible for tracking student attendance habits to identify and flag chronic absenteeism, an end goal, which is nearly impossible without accurate and timely data. During this past school year, PRDE began addressing this recurring issue by providing updated guidance on attendance-taking in a remote environment to teachers and implementing attendance-taking reports for school directors. The Department can further promote accountability of student attendance-taking through system updates that encourage timely data entry. PRDE must actively monitor student attendance to ensure the health and safety of students and provide interventions for students at risk of truancy.

- **Teacher absenteeism** is another historical issue that PRDE has confronted. Students need reliable interaction with a consistent adult resource to support their learning and development. In FY2021, PRDE took steps to improve its ability to track teacher attendance and respond to chronic absenteeism by integrating the Kronos time management system with payroll and HR systems. This change will also have significant financial benefits for the Department, as an Oversight Board analysis found that PRDE made at least $80 million in payments over 13 years to employees who had resigned, retired, died, or were otherwise not working. In March 2021, the Department finalized its Time & Attendance effort (referenced in *Chapter 13* above) and implemented the first round of payroll deductions for teachers based on missed class time, per the updated public policy. While the implementation of the Kronos system and payroll deductions are expected to reduce teacher absenteeism, school directors should actively monitor this metric to address chronically absent staff. School directors should ensure that Kronos systems are installed, online, and functioning and continue to foster a culture of accountability.

- **Distance learning strategies** continue to be a critical element of back-to-school and learning acceleration planning, especially given the amount of out-of-school time children in Puerto Rico have experienced over the past several years. Distance learning should be

88 Youth Truth, Learning and Well-Being During COVID-19 Survey*: Part I*, July 2020

89 Youth Truth, Learning and Well-Being During COVID-19 Survey*: Part II*, December 2020

90 Edutopia, Social and Emotional Learning Research Review, November 2012

91 NYSED; Bridges SIFE Manual; ELLIS Prep Academy SCEP

92 Gobierno de Puerto Rico Departamento de Educación, "Informe de la toma de asistencia", January 2021

accessible on a moment's notice as it could potentially be the default delivery model for some students in the fall of 2021, particularly those students in the southern part of the Island where school buildings have not been rebuilt. PRDE's distance learning plan should include strategies to enable instructional delivery (e.g., adaptive curriculum), support vulnerable populations, professional development mechanisms for teachers, and technology deployment. In FY2021, PRDE started to build out its distance learning capabilities with recurring trainings on new technology tools occurring throughout the school year for staff, parents, and students. Although PRDE has procured thousands of devices for students and teachers and provided programming to offer $40 vouchers for internet service through May 2021, the deployment of these resources alone does not constitute a learning strategy. PRDE must also follow through with commitments to developing a Learning Management System and a more digitally focused curriculum as described in the Curriculum Reform section of this chapter. PRDE should seek to leverage strategies that have proven successful, focusing on delivering high-quality instruction with appropriate professional supports for teachers.

8.3.2 Current state and path forward

Even without knowing the full effects of the disruption of the last year, PRDE has started to address the increased support that children so desperately need during this turbulent time, including launching a tutoring program in partnership with the University of Puerto Rico (UPR) to provide extra support in Math, English, and Spanish. PRDE also hired school nurses in every school and psychologists in ~72% of schools to provide physical, emotional, and mental health resources. While these steps are a start to installing critical support structures and programs, PRDE will need scaled strategies that impact all schools to most effectively accelerate learning and care for the social-emotional well-being of all students.

While PRDE should plan for all possible back-to-school situations, the successful reopening of ~120 schools in March 2021 can help inform a strategy for a fully in-person return in the fall. Reopening schools is contingent upon PRDE taking all necessary measures to protect the health and safety of students and staff by reviewing and updating existing safety protocols to protect the community.

Funding for initiatives to address the impacts of the COVID-19 pandemic should come from the various funding sources previously mentioned in this chapter; for example, these efforts are an allowable expense under federal funding from the American Rescue Plan (ARP) Act. *Exhibit 46* describes some of the key implementation actions that are critical to this initiative.

EXHIBIT 46: BACK-TO-SCHOOL AND DISTANCE LEARNING IMPLEMENTATION ACTIONS

	Action item	Owner	Deadline
To be completed in FY2021	• Develop plans and protocols to deliver remote instruction, and support parents and teachers June 2020 through remainder of 2019-20 school year	• PRDE	• June 2020
	• Assess which portions of the curriculum will be areas of focus during remote learning period, balancing accessibility and equity	• PRDE	• June 2020
	• Rapidly provide Professional Development and platform for digital community/connection as educators seek to exchange ideas and best practices for remote instruction	• PRDE	• June 2020
	• Assess summer scenarios by exploring options to provide ongoing learning opportunities and/or programming for students during summer months	• PRDE	• June 2020
	• Identify gaps in IT systems and infrastructure to enable seamless online learning and teaching June 2020 experience	• PRDE	• June 2020
	• Define criteria for selection of technology vendors, including long-term viability, scalability of platform, and data security among others	• PRDE	• June 2020
	• Distribute devices and support students' and educators' hardware and connectivity needs as July/August they transition to remote learning 2020	• PRDE	• July/ August 2020
	• Coordinate with Academics team and educators to reflect on best practices in remote learning environments, and streamline technology to support better integration of education delivery and instructional strategies	• PRDE	• July/ August 2020
	• Evaluate effectiveness of technology tools and platforms, and improve processes underpinning remote operations (e.g., systems to connect administration and learning, devices and training)	• PRDE	• July/ August 2020
	• Develop more comprehensive asset management strategy, including asset inventory reviews, to support remote learning	• PRDE	• July/ August 2020
	• Reflect on what worked this spring, challenges, and emerging best practices to develop a plan August 2020 to strength instructional delivery (regardless of setting)	• PRDE	• August 2020
	• Provide new professional development for educators that reflects the now-different demands of their jobs, and the likely need for flexible instructional tactics going forward	• PRDE	• August 2020
	• Engage in scenario planning for fall instruction (various delivery channels, adjusted curriculum), and plan for altered curriculum and schedules for fall	• PRDE	• August 2020
	• Develop plan to assess impact of COVID-related school closures on student learning and progress	• PRDE	• August 2020
	• Assess impact of remote learning and remediate lost learning time by doubling down on English, Spanish, Science and math	• PRDE	• December 2020
To be completed in FY2021	• Offer additional mental health services and social-emotional supports for students, who will have had a wide variety of at-home experiences over the last 6 months	• PRDE	• December 2020
	• Create specific plans, pathways, and supports for students in key transition grades to ensure that they have the supports necessary to be successful without having completed the prior grade in-person	• PRDE	• December 2020
	• Provide educators with ongoing support and professional practice opportunities to improve regardless of delivery channel	• PRDE	• December 2020
	• Assess security, bandwidth and resiliency of current IT infrastructure and invest to shore up gaps identified	• PRDE	• December 2020
	• Review and alter cybersecurity processes and protocols to reflect changes in technology infrastructure and use	• PRDE	• December 2020
	• Invest in online learning infrastructure to ensure resiliency of remote learning environment	• PRDE	• December 2020
	• Identify opportunities improve efficiency and security of technology portfolio, infrastructure, and operating model	• PRDE	• December 2020
To be completed in FY2022	• Design and implement a comprehensive SEL strategy that mentally prepares students to engage in learning and strengthens the student/teacher relationship (e.g., student advisory programs, community engagement forums); include feedback loops to assess program impact on student mental health / social-emotional development	• PRDE	• July/ August 2021
	• Quantify learning gaps through diagnostic assessments and identify highest need academic areas and student populations	• PRDE	• August 2021
	• Prepare and implement an action plan to address identified learning gaps through research-backed interventions (e.g. high frequency tutoring, targeted remediation sessions)	• PRDE	• August 2021
	• Reach a student time reporting threshold of at least 95% (as measured by % of all teachers recording student attendance within the SIE system at the end of a school day) with proof of physically marking students present over the course of the semester	• PRDE	• October 31, 2021
	• Reach a teacher time reporting threshold of at least 95% teacher attendance across all schools as measured by punching in via the Kronos system (in-person or remote)	• PRDE	• May 1, 2022

8.4 Improve professional development opportunities for directors and teachers

PRDE must strengthen longer-term professional development for teachers and directors to improve classroom instruction and school management. Well-trained teachers are better

equipped to develop strong lesson plans, understand their curricula, and support their students.[93] Similarly, well-trained school directors are better equipped to improve school operations, implement reforms, and oversee the development of teachers when they receive robust training on how to do so.

In addition to the importance of developing academic staff, a significant factor driving PRDE's underperformance is a lack of capacity within the system to execute complex strategies in a challenging educational environment. Many senior members within the Department do not have extensive educational backgrounds, and there is high turnover at the leadership level—a problem magnified during gubernatorial transitions. Additionally, PRDE's Human Resources office lacks a clear talent management function to support the recruitment, development, and retention of effective employees across the organization. To best leverage and build upon the talent in the system, PRDE should strive to provide opportunities for continuous learning through professional development programs, particularly by leveraging the training partnership with the University of Puerto Rico (UPR). These programs should be differentiated based on the level and function of the staff member to best support skills most relevant to his or her role. Instituting these changes will result in well-trained staff who understand how to improve the system.

8.4.1 Specific initiatives and design parameters

The 2021 Fiscal Plan requires that PRDE adhere to a set of parameters when implementing this reform. Specifically, PRDE must:

- **Invest in school director development** to tap into a key lever for improving student outcomes. A recent study from the Wallace Foundation found that replacing a below-average elementary school principal (the equivalent to PRDE's school director position) with an above-average one would result in nearly 3 months of learning gains in both math and reading, which is a larger impact than two-thirds of other math interventions and about half of reading interventions.94 On average, PRDE school directors scored lower (2.3 out of 4) than mainland U.S. principals (2.8) on the Development World Management survey, indicating room for improvement.95 To close this gap and improve principal effectiveness, PRDE has engaged in a research-practice partnership with the University of Toronto to offer Academia de Desarrollo Profesional de la Educación para la Gestión de Liderazgo y la Profesionalización (EDUGESPRO), a professional development & management training program, to all school directors by the end of FY2022. PRDE should continue to monitor the impact of these efforts and engage in other evidence-based programs tied to school director recruitment and ongoing development.
- **Define operational and results-based criteria** that will provide the Central Office with additional input in identifying the top-performing directors and teachers across PRDE, enabling PRDE to broaden mentorship opportunities that introduce underperforming educators to best practices (e.g., by reducing top-performers' workloads to leverage them as formal mentors trained via the University of Puerto Rico-PRDE partnership and hiring job-embedded coaches to serve as full-time mentors), and offering evaluators across PRDE schools (e.g., superintendents, gerentes escolares, facilitators) a clear structure against which to provide directors and teachers performance-based feedback.
- **Formalize communities of practice across PRDE schools** to expose teachers and directors to instructional, administrative, and social-developmental best practices, and

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93 Investigators found that a one standard deviation increase in teacher quality in a single grade raises annual earnings by 1% on average. Moreover, researchers linked the replacement of a low (bottom 5%) value-added teacher with an average value-added teacher to a $267,000 increase in students' average lifetime incomes per classroom taught; see Chetty, et. al, "The Long-Term Impacts of Teachers: Teacher Value-Added and Student Outcomes in Adulthood," published 2011

94 Wallace Foundation, *How Principals Affect Students and School,* February 2021

95 University of Toronto, *Improving and Sustaining Management Practices in Public Schools: Report Year 1*, December 2020

strengthen ELL, K-5 literacy, and STEM instruction (especially K-5 mathematics) through robust mentorship (e.g., all low-performing teachers could be assigned a high-performing mentor to help them develop their strengths and address their weaknesses).[96,97]

- **Fully leverage the K-12 teacher training partnership between the University of Puerto Rico (UPR) and PRDE** made possible by a $10 million annual Commonwealth payment to the university-to subsidize teacher certification and training in core subjects (e.g., English, mathematics, and science) and practices (e.g., classroom management, how to design effective assessments) to improve instructional quality, and expand the availability of teacher preparation classes that address specific areas of Departmental underperformance (e.g., coursework on how to identify, support, and find additional assistance for students with academic or behavioral challenges).
- **Capitalize on partnerships with education non-governmental organizations (NGOs)** to establish a high-quality fellowship program to train motivated and high-quality professionals on the Island to transition into careers in education and develop long-term home-grown solutions to instructional or administrative challenges (e.g., how to develop teacher evaluations that measure value-add behaviors).[98]
- **Introduce universal student screenings conducted by PRDE school psychologists[99] alongside a Multi-Tiered System of Support (MTSS)[100] framework** to: a) ensure that every student's developmental needs are routinely identified and met to prevent children from being erroneously categorized as Special Education students; b) understand the academic, behavioral, and social-emotional needs of the whole child to pair every student with appropriate interventions (e.g., small group lessons for certain Special Education students); c) ensure that every Special Education student receives services required by their Individualized Education Plans (IEPs) in the least restrictive setting possible (e.g., reading comprehension support in a General Education classroom); and d) reduce the use of costly professional services firms to execute IEP analyses and other support services required by Special Education students (e.g., by leveraging in-house developmental staff). It is important to note that successful MTSS implementation is contingent upon high-quality data and data systems.

8.4.2 Current state and path forward

Despite the importance of professional development, PRDE currently lacks a standardized approach to delivering such programs. PRDE has proposed strengthening its STEM offerings, boosting literacy proficiency and bilingualism, and teaching more "real world" or actionable skills. To further these goals, the Oversight Board has allocated funding to several initiatives intended to improve student instruction and outcomes by supporting more robust professional development within PRDE, including the UPR-PRDE teacher training partnership and programming to train ELL instructors across the Island. The UPR-PRDE partnership is intended to offer PRDE educators robust training opportunities to help them develop capabilities and

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96 Communities of practice offer teachers and administrators a forum to meet their counterparts to discuss best practices and solve classroom challenge

97 In California, Long Beach Unified School District has used formal CoPs to improve English language learning (ELL) test scores– a top priority for PRDE–by 9% since 2015

98 Some partnerships are already yielding benefits; an ongoing PRDE-Puerto Rico Education Foundation (PREF) initiative has provided administrators guidance on how to manage a regional education system. As part of this effort, PREF identified of barriers to improved student outcomes in Bayamon ORE and proposed several solutions

99 To identify students with academic or behavioral learning challenges, screenings should be brief, sensitive to change over time, and grounded in research

100 The MTSS framework is a three-tiered approach to identify and meet the needs of General and Special Education students in the least-restrictive setting possible (as required by law). It stresses the use of a pedagogical approach that evaluates the academic, behavioral, and social-emotional needs of the "whole child" to place students into the appropriate tier. The first tier (80-85% of students) includes all General Education and many Special Education students and uses universal screenings to identify learning or behavioral challenges. The second tier (10-15% of students) includes Special Education students with additional academic or behavioral goals that respond to support in a targeted small group setting. The tertiary prevention tier (3-5% of students) offers students that do not respond to second tier interventions individualized support and assistance

DRA Ex. 236

skillsets actively sought by the Department. The initiative is made possible through a $10 million annual appropriation from the Commonwealth to UPR. In FY2021, PRDE used $8 million of these available funds to launch credit-bearing courses and leadership academies and allocated a maximum of $10 million to the tutoring program for students (with ~$1.2 million already incurred).

The Oversight Board encourages PRDE to select interventions that align most-closely with its 2022-27 strategic plan, but stresses that the Department must complete the following action items by their respective deadlines:

EXHIBIT 47: REQUIRED IMPLEMENTATION ACTIONS TO STRENGTHEN PROFESSIONAL DEVELOPMENT

	Action item	Owner	Deadline
To be completed in FY2021	•Work with the non-profit organizations to apply for discretionary Federal grant to defray expenses associated with training ELL instructors	•PRDE	•June 2020
	•Launch NGO partnership to hire and train high-quality ELL instructors	•PRDE	•September 2020
	•Design professional development reform that leverages (1) effectiveness criteria, (2) learning walks and communities of progress (3) the PRDE-UPR partnership, (4) partnerships with non-profit organization (5) internal development staff and the MTSS framework, and (6) other viable intervention	•PRDE	•February 15, 2021
	•Finalize updates to PD reforms as part of updated strategic plan	•PRDE	•March 15, 2021
	•Train all developmental support staff in how to leverage the MTSS framework to better support the needs of all students	•PRDE	•June 30, 2021
	•Finalize professional development section of annual reform implementation progress report	•PRDE	•Annually from June 30, 2021
To be completed in FY2022	•Establish and implement a strategy to leverage UPR and NGO partnerships to provide professional development for teachers and school directors that intentionally targets skills related to accelerating learning, providing social-emotional support, and improving management (e.g., professional learning communities, coaching)	•PRDE	•December 15, 2022
	•Develop a pipeline program for high-quality school directors that addresses targeted external recruitment and development opportunities for high potential internal candidates	•PRDE	•May 1, 2022

8.5 Make targeted investments to boost family engagement

Given the relationship between family engagement and student achievement, PRDE must broaden its efforts to promote robust family engagement in its students' academic lives.[101] Parental involvement is one of five key factors that, when present, makes schools ten times likelier to drive meaningful improvements in student performance.[102] Comprehensive family engagement, meanwhile, can magnify the benefits of parental involvement and has been linked to higher levels of academic performance, stronger student motivation, fewer behavioral problems, and easier social-emotional adjustment.[103] As such, PRDE should leverage non-digital and digital tools, as well proven family engagement strategies, to facilitate robust and impactful family engagement.

101 A family engagement partnership between District of Columbia Public Schools and local parents, for example, yielded improved student literacy scores and boosted student attendance by 24%

102 The other four factors are the (1) use of an instructional guidance system to articulate the "what" and "how" of teaching, (2) professional capacity to improve instruction, (3) the presence of a student-centered learning climate, and (4) strong leadership from principals; see Bryk, et. al., *Organizing Schools for Improvement: Lessons from Chicago*, published 2010

103 Examples of comprehensive family engagement include setting clear academic expectations and helping children develop strong reading habits; see Castro, et. al., "Parental Involvement on Student Academic Achievement: A Meta-Analysis," 2015; Niehaus, et. al., "School Support, Parental Involvement, and Academic and Social-Emotional Outcomes for English Language Learners," published 2014

8.5.1 *Specific initiatives and design parameters*

The 2021 Fiscal Plan requires that PRDE adhere to a set of parameters. Specifically, PRDE must:

- **Utilize non-digital and digital engagement tools** to empower families to obtain a robust picture of their child's academic trajectory (e.g., through individualized emails, use of a student information system containing student grades and attendance data), identify opportunities to volunteer in their student's school (e.g., through a weekly newsletter), and enable parents of Special Education students to more effectively advocate for and support the needs of their child (e.g., guide to Special Education services).
- **Leverage proven family engagement strategies** to better equip parents and teachers, using strengths-based approaches and relationship-based practices, to collaborate as equal partners in a child's development and improve student outcomes (especially for Special Education students), and achievement, through two-generation partnerships, which directly intertwine the education of children with parents to improve outcomes for both (e.g., offer parents job training alongside high-quality after school for their children).[104,105]
- **Regularly survey the families of PRDE students** to empower directors and teachers to understand how well they are supporting students' academic development, and identify opportunities to better meet the needs of the whole child (e.g., improve safety, provide additional behavioral support).

8.5.2 *Current state and path forward*

PRDE has taken initial steps to boost family engagement, but the Department must standardize the use of tools and strategies to maximize the impact of its family engagement efforts. In 2018, PRDE created an office of family engagement. While this office is a step in the right direction, the broader Department has yet to institutionalize the use of non-digital and digital tools to give parents a more robust sense of their child's performance. Moreover, the Department has not yet trained administrators or teachers in the use of proven family engagement strategies to foster more effective family engagement.[106]

While the Oversight Board encourages the Department to pursue interventions that align most-closely with its 2022-27 strategic plan, PRDE must accomplish the action items outlined in *Exhibit 48* by their respective deadlines.

EXHIBIT 48: REQUIRED IMPLEMENTATION ACTIONS TO BOOST FAMILY ENGAGEMENT

	Action item	Owner	Deadline
To be completed in FY2021	•Design family engagement strategy that leverages (1) non-digital and digital tools, (2) proven engagement strategies, (3) fielding family surveys, and (4) other viable interventions to boost family engagement at each achievement tier as part of the preliminary strategic plan	•PRDE	•February 15, 2021
	•Finalize updates to family engagement as part of the updated strategic plan	•PRDE	•March 15, 2021
To be completed in FY2022 and beyond	•Distribute family survey	•PRDE	•Every six months from October 15, 2021
	•Update family engagement reform section within annual reform implementation progress report	•PRDE	•Annually from July 15, 2022

104 Under a strengths-based approach, educators engage with parents as partners in a child's education, leverage parents to broaden their understanding of a student's needs, and work with families to identify opportunities to reinforce in-class lessons outside of school. Relationship-based practices promote reflection on families' personal backgrounds to shape interactions and use parents' emotions around their child's education to establish common ground between educators and households

105 For example, a 2-Gen partnership in St. Clair, AL successfully graduated 100% of adult participants from a pharmacy technician program at a local college while improving student attendance at an educational after-school program

106 *Noticel,* "Nace nueva oficina en el Departamento de Educación," published 2018

8.6 Systematically collect, manage, and leverage data

Regular data collection, management, and analysis will empower PRDE to make informed decisions to improve student outcomes and assess the effectiveness of its reform efforts. Evidence from mainland states suggests that data collection and analysis will enable PRDE to better direct resources toward impactful evidence-based curricular resources and instructional strategies, make targeted and timely interventions to support vulnerable student populations, and assess the impact of education reforms.[107] In turn, access to these datasets and analyses will empower educators, families, and third-parties to further improve student outcomes.

8.6.1 Specific initiatives and design parameters

The 2021 Fiscal Plan requires that PRDE adheres to a set of parameters to strengthen family engagement:

- **Identify which data is crucial to the optimization of funding, identification of intervention opportunities, and evaluation of reform effectiveness** in order to conduct a diagnostic of readily-trackable data within PRDE, understand which systems to connect, consolidate, or eliminate, and engage internal and external resources as needed to develop currently unavailable data-tracking capabilities.
- **Implement a data management system that allows superintendents, *gerentes escolares,* and facilitators to quickly access relevant regional, school, and student data** to evaluate student achievement (e.g., META-PR scores, grade point averages) and performance trends (e.g., attendance, truancy/ drop-outs; disciplinary referrals) in real-time. This includes digitizing Special Education students' IEP documentation to facilitate compliance with IEP requirements[108] and enable PRDE to effectively staff and budget Special Education and *Remedio Provisonal* programming. These systems will improve resource allocation (e.g., regional support teams) to support underperforming, vulnerable, or Special Education student populations and allow PRDE to measure the impact of education reforms on student outcomes and teacher satisfaction.
- **Enable directors and other school administrators to access the data management system** to support the implementation of the evidence-based progress-monitoring required for the operationalization of the MTSS framework to support all General and Special Education students in the least restrictive manner possible, evaluate the performance of teachers and students relative to key metrics or Departmental policies (e.g., revised time and attendance guidelines), tailor teacher professional development opportunities to address the most-pressing areas of student underperformance, and optimize the allocation of school resources.
- **Publish anonymized data using the data management system on a regular basis** to facilitate school-specific performance scorecards that include student and teacher attendance, META-PR results, and graduation rates, among other data points. This data will empower educators to reshape their instructional plans (e.g., content, lesson plans, and pacing) in response to student data (e.g., META-PR scores) and allow parents to understand their child's educational trajectory and make home-based interventions when appropriate. Third parties, such as education non-profits and academic researchers will also be able to better understand and support the educational needs of Puerto Rican students.

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[107] For example, in Texas, the state education agency uses the Student Data System (TSDS) to collect, manage, and produce individual student dashboards for educators to evaluate important information, such as college readiness trends. Similarly, in Kentucky, the Center for Education and Workforce Statistics collects statewide government data to support informed K-12 policymaking at the state, district, and school levels

[108] More robust initial compliance with IEP requirements could reduce costly expenses currently incurred through the use of *Remedio Provisional* as a result of untimely or inadequate support for Special Education students

8.6.2 *Current state and path forward*

To optimize the decision-making process, PRDE should first identify the most critical decisions it needs to make on a regular basis and develop a vision for how data and technology can provide support. However, PRDE has made very little progress in collecting or managing data to inform decision-making. To-date, the Department has focused on developing a stronger time and attendance system to track student and teacher attendance. Beyond this, PRDE has yet to train all staff on how to make data-driven decisions nor established a culture of high-quality data collection. The absence of a robust data management system populated by accurate and timely relevant data further inhibits data-driven decision-making. Improved data capabilities will allow leadership, staff, and educators to be more agile in their work, dedicating time, energy, and dollars to efforts that will have the most impact on student outcomes.

Although the Oversight Board encourages PRDE to introduce interventions that align most-closely with its 2022-27 strategic plan, the Department must accomplish the action items outlined in *Exhibit 49* by their respective deadlines.

EXHIBIT 49: REQUIRED IMPLEMENTATION ACTIONS TO FACILITATE DATA-DRIVEN DECISION MAKING

	Action item	Owner	Deadline
To be completed in FY2022 and beyond	•Central office: Update data reform section within annual implementation progress report	•PRDE	•Annually from June 30, 2021
	•Assemble data reform working group comprised of PRDE technical personnel and educators (e.g., directors, teachers, etc.)	•PRDE	•July 1, 2021
	•Working group: Define KPIs and ideal technical future state for PRDE data systems (e.g., desired data outputs to appear on student-, school-, and system-wide performance dashboards; most important data for decision-making, etc.)	•PRDE	•August 1, 2021
	•Working group: Conduct a review of PRDE's systems architecture to understand gaps between current and ideal technical future state	•PRDE	•September 15. 2021
	•Central office: Update scorecards to reflect the most recent information for school year 2020-2021 and provide reporting to the Oversight Board on agreed upon format	•PRDE	•September 15, 2021
	•Working group: Design implementation roadmap (including training on new systems and tools) and identify all relevant stakeholders needed to achieve ideal technical future state	•PRDE	•October 31, 2021
	•Technical staff: Once implementation roadmap is finalized, begin execution, including monthly progress reports to the Oversight Board	•PRDE	•December 2021 to December 2022
	•Central office: Update data reform section within annual reform implementation progress report	•PRDE	•June 30, 2022 (annually)
	•Central office: Train all staff and educators (e.g., directors, teachers) on how to use new data systems and tools	•PRDE	•July to December 2022
	•Central office: Begin sharing anonymized data with the National Center for Education Statistics	•PRDE	•Ongoing from January 2023
	•PRDE schools: Offer educators refresher courses and parents introductory sessions on how to use data systems and tools	•PRDE	•Ongoing from January 2023

Chapter 9. Ease of doing business reform

9.1 Current state of business regulation, investment promotion, and tourism attraction

The Government of Puerto Rico has been using the World Bank's *Doing Business Report*—an independent assessment and ranking of the ease of doing business in 190 economies— to

benchmark the business regulatory environment. The Doing Business indicators and methodology are designed to help countries reform their bureaucratic processes to improve the overall business climate. The World Bank did not publish its 2021 report due to irregularities found in the data in the Doing Business 2018 and Doing Business 2020 reports. Nevertheless, the data and benchmarking contained in the most recently published study continue to be excellent resources to compare Puerto Rico's doing business regulatory environment to best-in-class economies and top reformers. The report provides policymakers with an extensive knowledge base to learn from top performers and identify the regulatory and operational changes necessary to materially improve Puerto Rico's business environment.

Empirical studies have shown that, as a result of business environment reforms, countries have seen increases in firm creation, business activity, investment, and economic growth, after controlling for other relevant variables, such as overall governance and macroeconomic conditions. One study found that "on average, each business regulatory reform is associated with a 0.15% increase in growth rate of GDP."[109] Another concluded that "the overall ease of doing business has a positive and significant effect on business creation." [110] And a study on the impact of the ease of doing business indicators on foreign direct investment (FDI) flows found that "on average across economies, a difference of 1 percentage point in regulatory quality as measured by Doing Business distance to frontier scores is associated with a difference in annual FDI inflows of $250–500 million."[111] In sum, there exists ample theoretical and empirical evidence that effectively designing and implementing ease of doing business reforms has a positive effect on reducing barriers to new firm entry, new business creation, investment, and economic growth.

In 2020, the World Bank report rated Puerto Rico the 65th most business-friendly economy. The Island's ranking trails the U.S. mainland's (ranked 6th in 2020) and has declined annually since 2006 when Puerto Rico was ranked 18th. Bringing the Island's business environment in line with Mexico—the top-ranked Latin American and Caribbean economy (49th in 2018)—would give Puerto Rico the edge that it needs to succeed in an increasingly competitive environment; macroeconomic projections in the Fiscal Plan rely on achieving this goal. The Island competes regionally and internationally for tourism and hospitality investments; internationally for pharmaceutical, life sciences, and medical devices, as well as knowledge services, investments; and, overall, with mainland U.S. states. Given heightened levels of competition in the global marketplace, the Island needs to urgently improve its business-friendliness through implementation of ease of doing business reforms to support economic growth.

Instituting comprehensive reforms is particularly important considering the COVID-19 pandemic. Once global economies start to recover from the aftermath of the pandemic, companies may look to shift supply chains back to the U.S. Many are evaluating their business models from the experience of having to operate remotely, and many Governments will likely quickly respond to these changing market forces by implementing rapid reforms to capture these opportunities. Therefore, Puerto Rico needs to urgently institute ease of doing business reforms to succeed in attracting new investment. Small businesses continue to face significant uncertainty as economic conditions evolve, underscoring the need to generate economic activity and attract new investments across the Island. Failure to institute reforms may enable U.S. mainland states and rapidly reforming countries to out-compete Puerto Rico for key investments. For example, the Democratic Republic of Georgia has made drastic improvements in its ease of doing business ranking, driven by robust reforms (e.g., streamlining tax compliance, simplifying administrative processes for starting a business, making contract enforcement easier). Georgia has seen its output per capita increase by 66% and its business density triple between 2006 and 2014–the same period in which the country of Georgia improved its ease of doing business ranking from 98th to 8th.

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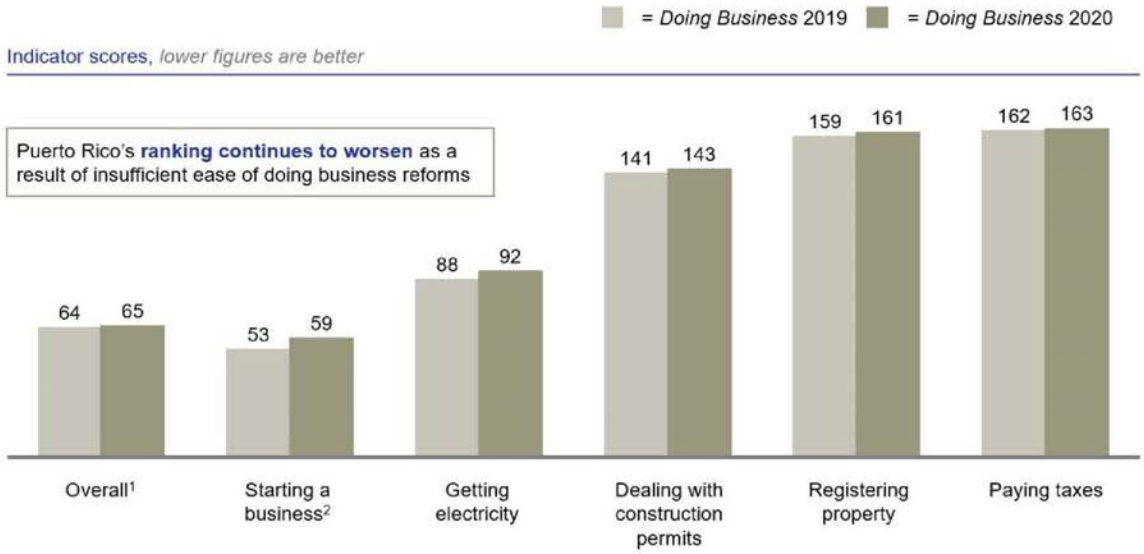
109 Haidar, J. I. (2012). The impact of business regulatory reforms on economic growth. Journal of the Japanese and international economies, 26(3), 285-307.
110 Canare, T. 2018. "The Effect of Ease of Doing Business on Firm Creation." Annals of Economics and Finance, 19(2): 555-584
111 Anderson, J., & Gonzalez, A. (2013). Does Doing Business matter for foreign direct investment? Doing Business.

Puerto Rico's relatively low-ranked business-friendliness in the 2020 World Bank Doing Business Survey is correlated with deficiencies in Government regulations and processes (see *Exhibit 50)*, including:

- **Getting electricity:** The Island's energy supply is costly and unreliable. The cost to obtain an electric connection in Puerto Rico is equal to 318% of income per capita[112]
- **Dealing with construction permits:** Firms spend significant time 165 days, effort (22 procedures), and money (6.7% of project's future value) to obtain permits, on average[113]
- **Registering property:** Companies invest significant amounts of time (190 days) and effort (8 procedures), on average, to register property[114]
- **Paying taxes:** Firms report spending significant time (218 hours) completing filings and making payments (16 payments), on average[115]
- **Occupational licensing laws:** Excessive regulations hinder entry into the labor force. Puerto Rico licenses over 185 professions with excessive requirements and significant cost. With a labor participation rate of less than 40%, many unnecessary requirements constrain economic activity, incentivize shadow economy participation, and accelerate outmigration from Puerto Rico.
- **Freight regulations:** Expanding the use of minimum freight tariffs across previously unregulated sectors of the economy, and other burdensome regulations, inflated transportation costs and increased the complexity of doing business across the Island. While that increased minimum tariff has been stricken, the Commonwealth must look for more opportunities to reduce and eliminate excessive regulation.
- **Tourism attraction:** The Destination Marketing Organization's (DMO) efforts to transform Puerto Rico into a leading tourist destination are undermined by insufficient Government funding and the fact that key functions and responsibilities remain at the Puerto Rico Tourism Company.
- **Offshore investment attraction:** Inadequate Government resourcing and lack of progress on ease of doing business reforms have inhibited efforts to attract major investments, resulting in overreliance on tax incentives as a primary business promotion tool.

112 On the mainland, this cost falls to just 22% of income per capita and businesses enjoy much more reliable energy supplies
113 For comparison, businesses invest 81 days, complete 16 procedures, and pay 0.7% of a project's future value on the mainland according to the World Bank Doing 2020 Doing Business Survey
114 For comparison, businesses invest 15 days and complete four procedures on the mainland.
115 For comparison, businesses make 11 payments and invest 175 hours on the mainland; the odds of an audit for a corporate income tax underpayment are also substantially lower on the mainland.

EXHIBIT 50: DRIVERS OF PUERTO RICO'S UNDERPERFORMANCE IN DOING BUSINESS



1 Doing Business does not evaluate occupational licensing, on-Island freights, investment attraction, or tourism promotion
2 Ease of doing business reforms target improvements to starting a business as an extension of the effort to digitize and streamline all business permitting

The Government's efforts to date implementing ease of doing business reforms have been at best insufficient to compete with other economies demonstrably and indefatigably committed to swiftly improving their business regulatory environment. In 2020, the Government started to implement ease of doing business reforms in some of its processes, but reforms have been slow and not transformative or thorough enough to warrant improvements in ranking or in investor attitudes.

Compared to the May 2019 Fiscal Plan, delayed implementation of ease of doing business reforms has in turn affected forecasted Gross National Product (GNP) growth. The positive effect of implementation progress on initiatives like permit processing and tax paying automation, equivalent to 0.10%, is still expected to be captured in FY2023, while the 0.2% impact of the rest of initiatives, to be captured over two years, has been delayed by one year, from FY2025 to FY2026. In order to accomplish this GNP growth increase, and avoid further delays, the Government should make every effort to prioritize implementing the reforms included in the 2021 Fiscal Plan and dedicate the necessary resources to achieve the implementation targets and to reach a ranking of at least 49th in the Doing Business report.

To attain the GNP uptick associated with Ease of doing business (EODB) reforms, the Government needs to focus on achieving the following in FY2022:

- **Improve the availability, cost, and reliability of electricity (see *Chapter 10*).**
- **Make permits more easily accessible to enable business activity and public safety** by streamlining processes and eliminating procedural inefficiencies (e.g., reallocate underutilized personnel) across permitting agencies ("lean transformations"), digitizing all procedures required to start a business into the Single Business Portal, developing the Permitting Performance Dashboard, and launching the Red Tape Commission to support operational and technical transformations.
- **Overhaul property registration to facilitate financial transactions and promote disaster-preparedness** by identifying and standardizing best practices among registrars to speed up processing, merging the current land registration system with a faster land recordation system, merging the existing land registries into one uniform parcel registry, and launching a campaign to map ownership of all unregistered properties on the Island.

- **Simplify paying taxes to spur economic activity** by designing a tax administration reform that digitizes, consolidates, and eliminates select tax filings, and conducting an operational needs assessment across Hacienda to reallocate personnel.
- **Reduce occupational licensing to facilitate labor force participation** by designing legislative reforms to reduce required licenses and excessive requirements, implementing uniform licensing requirements like those in many U.S. mainland states, and consolidating the processing of occupational licenses under one department.
- **Minimize the negative effect of inefficient on-Island freight regulations by reverting to the interpretation of regulations concerning carriers that was in effect prior to December 23, 2020, ensure that any tariff increases on traditionally regulated segments of the economy are developed in line with best practices and Puerto Rico law with regard to regulatory processes, and minimize the financial barriers to entry in the trucking sector.** The Oversight Board will continue meeting with trucking representatives, the business community, and the Government of Puerto Rico to engage in a constructive dialogue to assess their needs and the best interests of the people of Puerto Rico.
- **Strengthen offshore investment attraction efforts** by implementing a strategy to compete with mainland states and other economies for investments as firms move to shift their supply chains to the U.S. and attracting airline cargo companies through the air cargo and passenger transfer hub waiver granted by the U.S. Department of Transportation.
- **Prime tourism attraction efforts for success** by transferring internal (on-Island), airline, and event marketing responsibilities and funding from the Puerto Rico Tourism Company (PRTC) to Discover Puerto Rico (DPR).

While all reforms will help foster economic growth and job creation, simplifying and digitizing permits (including business registrations), property registration, and paying taxes will have a particularly significant impact.

9.2 Streamline permits to promote business activity and public safety

To foster economic development, promote public safety, and enable recovery from the COVID-19 pandemic, the Government must urgently revamp the Island's permitting system.

As part of the efforts to reform the permitting process, a new Joint Regulation, the Island-wide permitting rules, was implemented in January 2021.[116] The Joint Regulation is intended to allow for an expedited permitting process, one of the biggest hurdles to business operations, through a change of the single permit process. The single permit process, in effect since 2019, attempts to allow applicants to complete all documentation required in one process, as long as the permit filing is in compliance with all requirements, including zoning. The new process, per the 2021 Joint Regulation, allows all required inspections to occur after a business starts operations. With this specific change, single permit approval time has been reduced from an average of 52 days in 2020 to an average of 13 days in 2021. In addition, many construction permits that once required an environmental assessment no longer require it if the project's environmental impact falls within certain minimal guidelines. This modification is expected to reduce permitting process timelines by at least six months and reduce business costs for those types of projects. Another

116 This Joint Regulation was declared null by the Court of Appeals on March 31, 2021 and on April 12, 2021 in two different judgments. The Puerto Rico Planning Board has 30 days to appeal the decisions before the Supreme Court of Puerto Rico, so they are not final. The Puerto Rico Planning Board has said that they will appeal the decision and if necessary will present their case before the Supreme Court of Puerto Rico. Until the decision becomes final, the Joint Regulation is considered as current.

DRA Ex. 236

important change in the regulation is that applicants can choose to renew their Single Permit in one or three years, reducing the time spent renewing permits.

Despite this near-term progress, the permitting process itself still needs to urgently be reformed, with the bulk of the work – process and system reengineering—still to be implemented over the next two to three years. Without these permanent changes, permitting backlogs will likely persist. Changes are required to create uniformity within the Island-wide permitting rules and estimated time to adjudicate permits, regardless of the office or the Municipality that is processing the permit.

Not only are the delays in construction permit issuance a deterrent to business creation and expansion, they also incentivize informal construction, which in turn potentially increases risks to public safety, as informal construction may not follow applicable building codes.[117] Without thorough implementation of the reforms outlined below, permitting will impede the Island's economic revitalization—discouraging construction and business operations, and undermining recipients who aim to rebuild their homes and businesses in the wake of natural disasters. In the aftermath of the COVID-19 pandemic, creating a streamlined permitting system that allows businesses to quickly start or restart activity will be crucial to support Puerto Rico's recovery—especially in the case of small businesses, which are particularly vulnerable to economic disruptions.[118]

9.2.1 Permitting reform design parameters

The 2021 Fiscal Plan requires the Government to implement the permitting reforms highlighted in bold, below. The 2021 Fiscal Plan recommends that the Government adhere to the corresponding set of parameters when implementing the required permitting reforms. Specifically, the Government must:

Implement operational changes to permitting processes

- **Improve efficiency while maintaining public safety.** The Government can implement this reform by eliminating sources of waste (e.g., under-trained employees asking applicants for excess documentation) through a lean transformation and routine regulatory training and testing for employees at key permitting agencies,119 and issuing all construction (PCOC)[120] and business (PU)[121] permits that comply with basic requirements on a conditional basis, with continued validity dependent on the findings of proactive (mid-construction or -operation) inspections.[122] The Government should also increase utilization (i.e., identifying additional inspection types to delegate) and oversight of third-party inspectors (e.g., more training and auditing),[123,124] streamline permitting for strategic projects (e.g., major developments,

117 In 2007, Interviron Services, Inc. concluded that as much of 55% of the Puerto Rico's residential and commercial construction could have been done informally; see Hinojosa, et. al., "The Housing Crisis in Puerto Rico and the Impact of Hurricane Maria," 2018.

118 For example, the average small business generally holds less than one month of cash on hand. JP Morgan Chase & Co Institute, "Cash is King: Flows, Balances, and Buffer Days: Evidence from 600,000 Small Businesses," 2016.

119 These include the Permits Management Office (OGPe), the chief permitting regulator; the Environmental Quality Board (DRNA-JCA), which exempts permits from environmental impact reviews and conducts the reviews themselves; and the Department of Health (DOH) and Firefighters Bureau (CB), which issue the sanitation licenses and fire prevention certificates required for businesses to operate.

120 The consolidated construction permit (PCOC) is required for all construction on the Island.

121 The single permit (PU) is required of all businesses on the Island to operate. It consolidates the use permit, the environmental quality certificate, the fire prevention certificate (adjudicated by CB), the sanitation license (adjudicated by DOH), and depending on the nature of the business, liquor, and tobacco licenses (adjudicated by Hacienda).

122 All permits are currently adjudicated through a time-intensive analysis to determine whether projects as written in the applications would comply with regulations. In a proactive inspection regime, regulatory compliance is ascertained through live inspections, enabling adjudicators to issue permits more quickly (reducing processing times), inspectors to verify code compliance in practice (boosting safety), and builders spot quality control issues earlier on (averting expensive rework).

123 Profesionales autorizados may complete fire prevention certificate inspections, but both OGPe and local permitting experts have voiced concern about the quality of some third-party inspections.

124 In Washington, D.C., third-party inspectors may conduct building, mechanical, electrical, and plumbing with supervision from the city's Commercial Inspections Division; see District of Columbia, "Third Party Program Procedure Manual 2018," 2018.

projects above a certain value threshold), and guarantee highly-delayed applications a right to obtain agency review.[125]

- **Accelerate construction permitting.** The Government can implement this reform by expanding the types of businesses and construction projects excluded from environmental impact review.[126] The Department of Natural and Environmental Resources (DRNA, by its Spanish acronym) should amend their Administrative Order on Categorical Exclusions to increase the number of actions and activities exempted to perform an environmental assessment because they do not have significant impact on the environment.
- **Expedite business permitting.** The Government can implement this reform by eliminating sanitation and fire department inspections for some businesses, such as stores in shopping centers and offices in some commercial buildings that go through annual inspections, and ending sanitation inspections for low-risk businesses (e.g., offices, retail outlets) altogether.[127] In addition, after completing reengineering of the permit's process, the permit's law and the joint regulation will need revisions to incorporate changes, simplify language, and eliminate procedural inefficiencies.
- **Improve municipal permitting offices' compliance with permitting regulations.** The Government can implement this reform by revising, standardizing, and renewing all legal agreements that allow autonomous municipalities to issue permits on their compliance with permitting regulations,[128] redirecting applications and fees away from non-compliant municipalities,[129] and allowing municipal permit applicants to document a municipal permitting office's regulatory non-compliance and petition OGPe to review their cases.
- **Allowing Government agencies to propose regulatory changes in response to economic or technological changes to maximize efficiency and safety.**[130]

9.2.2 Reform targets and indicators

Successful property registration reforms will allow Puerto Rico (ranked 143rd in the *Doing Business "dealing with* construction permits" indicator) to compete with the top-ranked Latin American and Caribbean economy in this indicator (ranked 87th) by reducing the time, number of procedures, and cost required to obtain permits by FY2023. It must digitize and integrate all procedures required to start a business into Single Business Portal (SBP) (Act 19-2017).

The Government must continue to redesign the Island's permitting regime by implementing operational changes to ensure systemic and enduring changes.

- **Overhaul the Single Business Portal:** The platform needs solutions to glitches and additional features to meet the Island's permitting needs. It should also be redesigned to be customer-centric, process-driven, and to prevent errors in document submittal[131] An

125 The Government could offer significantly delayed permit applications the ability to petition OGPe's Adjudication Board (OGPe-JA) for a final decision. In turn, the Government should bolster the board's technical capabilities by developing a permanent technical staff to review applications and require OGPe-JA to issue final rulings on their status by a certain deadline.

126 Before applying for permits, applicants must solicit an environmental document approval from OGPe. The categorical exclusion (DEC) is the most common and fastest to adjudicate (as no analyses are required). Applicants who do not qualify for a DEC must complete an environmental assessment (EA) or an environmental impact assessment (DIA).

127 An end to low-risk business sanitation inspections would reduce regulatory burdens for those businesses and enable DOH to allocate additional personnel to inspect high-risk facilities (e.g., labs, restaurants).

128 Act 81-1991 created autonomous municipalities. Under existing regulations, autonomous municipalities are legally allowed to open municipal permitting offices once they have submitted municipal zoning maps to and signed convenios de delegacion with JP. Convenios de delegacion are valid for five-year periods.

129 OGPe could redirect permitting applications and fees away from municipalities that display sustained patterns of non-compliance (via SBP) or (in conjunction with JP) digitally revoke their authority to issue permits altogether.

130 Modifications should respond to technological advances (e.g., development of new software that renders certain analyses obsolete). An effective mechanism in the Joint Regulation would require JP to (1) review all proposals and send viable ones to public commentary on a quarterly basis and (2) update the Joint Regulation within 90 days of their approval.

131 SBP was created by Act 19-2017 to serve as the Island's one-stop portal for construction and business permits, individual and corporate incentives, and business registration procedures. To-date, the platform is only used to solicit and adjudicate permits and incentives. SBP has been played by technical issues (e.g., incorrectly computing application fees, sending applications to the wrong permitting office, etc.) and hampered by the absence of important features (e.g., amending applications, allowing permitting agencies to view all tasks awaiting completion, etc.).

operational redesign will enable agencies to comply with processing time limits to adjudicate permits. While modifications to SBP were made to reduce technical glitches (e.g., applications sent to incorrect offices) and a lack of critical features (e.g., amending applications) additional intelligence capabilities have to be added to prevent errors, reduce time by directing applications through the process and permitting proponents to present complaints when process deviations occur. SBP upgrades will provide a foundation for the operational transformation. The Commonwealth should digitize and centralize all procedures to start a business as required by Act 19-2017 and facilitate inter-agency collaboration by offering all permitting agencies and municipal offices more visibility into outstanding tasks (e.g., inspections).

- **Revise all Island zoning to reduce land use consults or use variations:** The Planning Board needs to complete territorial planning for all municipalities, including updating existing plans to reduce location consultations (e.g., revising zones that have organically changed use but have not been recognized in the zoning maps). These problems are reflected in the lengthy and costly permitting process that needs to be followed for use variance and land use consults.
- **Revise the Environmental Document Regulation:** The DRNA should revise their regulation to allow for more flexible delimitation of actions that are determined to be Categorical Exclusions, including for existing facilities, expansions, and any other that are known to not have a significant impact on the environment. This change will expedite the permit evaluation process for many cases, as it reduces time to approximately six months for environmental document approval for many projects.
- **Establish Performance goals for all agencies, municipalities, and offices that participate in the permitting process, and publish a dashboard with the general status and statistics for accountability in the permitting process:** The creation of a public dashboard will provide transparency on the permitting process and will help identify bottlenecks and inefficiencies among the agencies and offices involved.
- **Launch a Permitting Performance Dashboard (DPP)** to evaluate permitting agencies' and Municipal offices' compliance with processing time limits found in the Joint Regulation[132] by calculating the average processing time (submission to adjudication) for all permit classes and types (and agency sub-tasks if adjudicated by two or more agencies),[133,134] tracking the number of applications closed without adjudication or returned to applicants due to incomplete documentation for all permit classes and types,[135] recording the percentage of third-party permit inspections audited by the Planning Board, and enabling applicants to view their permit's approval status in real-time.
- **Launch a Red Tape Commission**[136] comprised of private and public sector experts to identify opportunities to streamline the environmental documents, such as the Determination of Categorical Exclusion (DEC) and the Environmental Assessment (EA), and major construction procedures like the Land Use Consult (CUB), the Consolidated Construction Permit (PCOC), the Infrastructure Agency Recommendation (SRI), and the single business permit (PU). The commission should also map the objectives of all OGPe-issued permits to identify overlaps in scope, outdated use cases, permits that could be processed in parallel or

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132 The Joint Regulation creates three permit classes: Ministerial permits comply with all land use, zoning, and building regulations and must be adjudicated within 30 days. Discretionary permits that contravene only building rules (e.g., square footage limits) are subject to a Construction Consultation (CC) but not subject to public commentary and must be adjudicated within 120 days. All other discretionary permits are subject to a public hearing and must be adjudicated within 180 days.

133 Class refers to a permit's ministerial or discretionary character, type refers to its use (e.g., PCOC, PU, etc.).

134 The SRI is one example of a permit adjudicated by more than one agency. Although it is issued by OGPe, the determination is based on input from the affected infrastructure agency (e.g., PREPA).

135 The Joint Regulation resets time limits when agencies receive an application lacking required documentation. Local permitting experts have noted prior experiences with agencies marking completed applications "incomplete" to reset application time limits.

136 In New York City, a red tape commission developed more than 60 solutions to address inefficient business processes, including permitting. In New Jersey, the creation of a statewide commission coincided with a slowdown in the issuing of new regulations. When enforceable by law, red tape reduction efforts have drastically reduced excess regulations. Rhode Island eliminated 31% of all statewide regulations when it legally set its entire regulatory code to expire at the end of 2018. See Broughel, "A Dark Day for Red Tape in the Buckeye State," 2019.

leverage the same analyses, as well as recommend which permit inspections could be delegated to third-party inspectors and flag major SBP glitches and common-sense technical upgrades.

The implementation of these reforms is critical to improve the permitting process. The Oversight Board recommends the Government—notably the Planning Board (JP, by its Spanish acronym) and the Permits Management Office (OGPe, by its Spanish acronym)—implement these reforms promptly to improve the permitting system.[137] The implementation of these reforms is necessary to achieve the economic growth assumed in the Fiscal Plan and to increase the tax revenues that come as a result of economic growth.

To successfully implement permits' reform, the Government must accomplish the following action items by their respective deadlines:

EXHIBIT 51: IMPORTANT ACTIONS FOR IMPLEMENTING REQUIRED PERMITTING REFORM

	Action item	Owner	Deadline
To be completed in FY2022	• Establish Red Tape Commission Comprised of private sector experts, CB, DOH, DRNA-JCA, JP, OGPe, and the Oversight Board	• DDEC	• July 31, 2021
	• Publish in SBP Permit's Performance Dashboard with metrics by office: OGPe, Municipalities, DoH, FD, and all Agencies that participate in permits process and by employees.	• OGPe	• July 31, 2021
	• Establish and communicate performance goals for all permit office and Planning Board employees and incorporate in performance review process.	• OGPe, PRPB	• July 31, 2021
	• Train all supervisors in supervisory skills, performance and change management.	• OGPe, PRPB, UPR	• July 31, 2021
	• Develop and publish RFP to hire lean consultants to perform process reengineering with Code Enforcement Grant.	• OGPe, PRPB/IBTS	• July 31, 2021
	• Revise all Island zoning to reduce land use consults or use variations. Obtain from SBP list of repetitive location consultations to discuss with PRPB to identify areas to change zoning and include id field in SBP for field variations.	• PRPB	• July 31, 2021
	• Develop new Strategic Project Definition, streamline approval process with metrics and dashboard and activate committee.	• Governor's Advisor on Priority Projects	• August 30, 2021
	• Establish and communicate an oversight procedure for PAs, OGPe and Municipal Offices' personnel that includes: % of cases to be audited, deficiencies reports and sanctions.	• PRPB	• September 30, 2021
	• Create dashboard of PA's and employees (users) performance (audit scores and complaints) and deficiencies.	• PRPB	• September 30, 2021
	• Select and hire Lean Consultant.	• OGPe, PRPB/IBTS	• September 30, 2021
	• Re-train all OGPe and Municipal Permit's Offices employees, technicians, inspectors on new regulation, SBP and code adoption (Grant) .	• OGPe, PRPB/IBTS	• October 31, 2021
	• Revise the environmental document regulation.	• DRNA	• October 31, 2021
	• Under Code Adoption Grant develop RFP for System Architecture Provider with Customer Centric and Service Design Experience for SBP development.	• OGPe, PRPB/IBTS	• October 31, 2021
	• Design implementation plan to digitalize all business registration process (to start a new business)	• Business Registration Agencies	• December 31, 2021
	• Select System engineer and start SBP system design	• OGPe, PRPB/IBTS	• December 31, 2021
	• Amend laws to allow a streamlined process for the development of territorial plans.	• Legislature	• December 31, 2021
	• Complete lean reengineering and communicate recommendations.	• OGPe, PRPB/IBTS, Lean Consultant	• January 31, 2022

137 For example, creating a more coherent land use plan and zoning map could streamline the permitting process by eliminating the need for time-intensive pre-construction consultations. Multi-year delays in updating this map have increased the need for such consultations as Island's developmental trajectory has necessitated commercial and industrial development in areas officially zoned for residential or agricultural uses. As such, the Oversight Board urges collaboration between JP and autonomous municipalities to produce an updated land use plan and zoning map that meets the Island's economic and environmental needs.

	Action item	Owner	Deadline
To be completed in FY2022	• Amend permit law and regulation (as necessary) to incorporate lean recommendations.	• Legislature/Executive	• March 31, 2022
	• Complete SBP System Design.	• OGPe, PRPB/IBTS	• March 31, 2022
	• Develop RFP for SBP System Developer to create SBP modifications.	• OGPe, PRPB/IBTS	• April 30, 2022
	• Select System developer and start SBP system programming	• OGPe, PRPB/IBTS	• June 30, 2022
To be completed in FY2023	• Amend Joint Permit Regulation to incorporate changes required by changes in the law and lean process.	• PRPB	• September 31, 2022
	• Complete SBP modifications.	• OGPe, PRPB/IBTS	• December 31, 2022
	• Complete territorial planning for municipalities and update existing plans.	• PRPB	• December 31, 2022
	• Fully digitalize all procedures to start a business within SBP	• Third Parties	• June 30, 2023
	• Reduce average processing times for each permit type and class to 2x Joint Regulation	• OGPe, PRPB	• June 30, 2023
	• Reduce average processing times for each permit type and class to comply	• OGPe, PRPB	• June 30, 2023

9.3 Overhaul property registration to facilitate financial transactions and promote disaster-preparedness

To remove barriers to financial activity and promote disaster-preparedness, the Government must continue implementing property registration reforms in FY2021. The digitization of property registrations has boosted productivity at the Department of Justice-Property Registry (DOJ-PR), enabling the registry to process more documents than it received[138] Since the certification of the 2020 Fiscal Plan, the Register has been able to reduce backlogs from 400,000 to 320,000 documents, and registrations average less than 90 days to process compared to 190 days in the World Bank 2020 report. In some sections of the Register document registration is taking less than ten days. This has been done by creating performance dashboards and establishing performance goals for all employees. However, even with these temporary changes, the backlog has not been eliminated, and without systemic and procedural changes the backlog could further increase, therefore procedural changes are necessary for long-term reform.

Accelerating property registration will ensure that all residents and businesses can quickly and reliably document property rights—crucial to day-to-day business operations and to post-disaster recovery efforts. As it stands, the Island's current set of disjointed registries does not comprehensively map all land ownership, complicating the Government's disaster relief efforts.[139,140,141] To empower residents and businesses to recover from future natural disasters and comply with U.S. Department of Housing and Urban Development (HUD) guidelines for unlocking $8.3 billion in Community Development Block Grant Mitigation (CDBG-MIT) funds, reforms should also demonstrate meaningful progress in the creation of a uniform parcel registry that can be used to verify the ownership of properties across the Island.

9.3.1 *Reform design parameters*

The 2021 Fiscal Plan requires the Government to implement the property registration reforms highlighted in bold, below. The 2021 Fiscal Plan recommends that the Government adhere to the

138 Puerto Rico Department of Justice-Property Registry, performance data shared with Oversight Board, 2019; the World Bank Group, Doing Business 2020, 2019.

139 In the aftermath of the 2017 hurricanes, many individuals and families affected by the disasters struggled to document legal ownership of their properties, requiring FEMA to make an exception and allow claimants to self-certify ownership,

140 Unregistered properties, also known as informal housing stock, are generally self-built by lower-income households, often in flood zones and without rigid building code compliance. In 2007, Interviron Services, Inc. concluded that as much of 55% of the Puerto Rico's residential and commercial construction could have been done informally.

141 Puerto Rico has three property registration systems: (1) DOJ-PR's registry records transactions (e.g. acquisitions) relating to real properties and uses registrars to analyze the validity of property transactions; (2) Centro de Recaudacion de Ingresos Municipales (CRIM) maintains a digital registry of real property in each municipality (the Cadaster of Puerto Rico) for tax, legal, economic, and administrative purposes; (3) JP maintains an interactive database with location, environmental, and land use data across the Island. Neither the DOJ-PR registry nor the Cadaster accurately capture property ownership. Registration in the former is voluntary, time-consuming, expensive, and unnecessary in the absence of financial transactions. While registration in the latter is mandatory, the Cadaster does automatically record informal transactions.